#### Written report to the NFOG Board

#### Scientific travel to Tehran, Iran (NF 15025)

The purpose of this visit was to distribute the result of my PhD project "Near miss approach reveals the impact of caesarean overuse and lack of health insurance on maternal health at university hospitals in Tehran".

My supervisor (Dr. Birgitta Essén) and I succeeded to share our results with obstetricians and gynecologists working at hospitals, and also we had valuable meetings with those who are responsible for maternal health at national level at Ministry of Health and the president of National Association for Iranian Gynecologists and Obstetricians (NAIGO).

I arrived in Tehran at night on the 9<sup>th</sup> of May and my supervisor in the morning on the 11th. Firstly we worked and prepared ourselves for the presentations. On Tuesday the 12<sup>th</sup> of May at Ministry of Health, we met the head of the department of maternal health and her colleagues. They presented the current situation and the challenges of maternal health in the country and we showed the important determinants we have found concerning maternal near miss. They wanted us to continue the collaboration we have had with Shahid Beheshti University of Medical Sciences (SBMU) and carry out further interventional studies.



On Wednesday, the 13<sup>th</sup> of May, we met the head of Infertility Reproductive Health Research Centre of SBMU and discussed the probability of conducting an

international regional workshop concerning maternal health in collaboration with other Asian countries.



On Thursday, the 14<sup>th</sup> of May, Dr. Essén delivered a presentation about historical overview of reducing maternal mortality in Sweden and introduced Maternal Health projects she has had around the world at NAIGO seminar. Furthermore, I delivered two seminars; the first one was about global maternal near miss and the second one was delivered our results at university hospitals in Tehran. Audiences appreciated our presentations and we had good discussions afterwards.



## National Association of Iranian Gynecologists and Obstetricians (NAIGO)

Monthly Seminar (Tehran, 14 May 2015)

### Preterm Labor

Safe Motherhood: current situation, how to reach optimal performance

# 8:00-8:20 Opening

Panel: Dr. Pourreza, Dr.Hantoushzadeh, Dr.Nasr		
8:20-8:40	Preterm Labor (definition, prediction and prevention)	Dr. Eslamian
8:40–9:00	Preterm Labor with intact membrane	Dr. Moshfeghi
9:00-9:20	PROM	Dr. Ghotbizadeh
9:20–9:40	Discussions	
9:40-9:50	Introducing a new medicine	
Panel: Dr.Akbarian, Dr.Ehdaeevand, Dr.Fallahian, Dr.Mosavi		
9:50–10:10	Historical overview of reducing maternal mortality in Sweden Dr. Essén	
10:10–10:30	Maternal near miss: an obstetric indicator for monitoring the quality of care Dr. Mohammadi	
10:30–10:50	Maternal near miss audits characterize severe morbidities and the quality of care at university hospitals in Tehran Dr. Mohammadi	
10:50-11:00	Discussions	
11:00-11:30	Break	
11:30–11:50	National Guidelines	Dr. Abedini
11:50–14:00	Case reports Dr. Sanjari, Dr. Hantoushzadeh, Dr Abedini, Dr. Ghotbizadeh, Dr. Mohammadi, Dr. Nasr	

Dr. Essén and I traveled back to Sweden on Friday the  $15^{th}$  and Saturday the  $16^{th}$  of May respectively.

#### Abstracts of our studies at university hospitals in Tehran

#### **Background**

Cesarean section (CS) has alarmingly increased in Iran despite the correlation it has with adverse maternal and neonatal outcomes. In Tehran, the growing trend is even higher (CS rates 2009: 74%) while no information concerning severe outcomes is available. Therefore, this study aims at exploring the pattern of maternal near miss (MNM), causes, risk factors, and perinatal outcomes in settings with a high rate of CS.

#### Method

A prospective descriptive study of women developing organ dysfunctions during pregnancy, childbirth, and post partum period was conducted at three university hospitals from 2012 to 2014. The modified WHO near miss approach was applied to identify cases. A random sample of admitted women in the maternity units during the study period represented population. Pertinent data was extracted from patients' notes. Chi-square tests and logistic regression models examined measures and compared differences.

#### Results

Among 12965 live births, 82 developed severe morbidities and 12 died. Over a third of near misses and 42% of mortalities were referred to the hospitals. Total maternal near miss ratio was 6.3/1000 live births. Majority of maternal near misses resulted from severe postpartum haemorrhage, hypertensive disorders, and placenta previa. The significant risk factors were Afghan nationality; CS delivery, co-morbidity, and severe anaemia while prenatal care gave protection. The increased risk for immigrants and the protective influence of prenatal care disappeared after adjusting for health insurance. Compared with population, adverse perinatal outcomes were 4 times higher among cases.

#### Conclusion

The WHO near miss tool was found practical and useful in middle-income settings. CS and its consequences were clearly associated with maternal near miss. Afghanborn immigrants faced higher risk of severe morbidity through lack of health insurance. Health coverage for reproductive services can provide access to care and improve safe motherhood for both immigrants and natives.