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# Non-consultant Hospital Doctors Views' of Covid-19 Measures in Irish Maternity Units

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**Abstract**

***Aims***

To access the views of non-consultant hospital doctors (NCHDs) on measures taken in Irish maternity units in response to the COVID-19 pandemic.

***Methods***

The survey, conducted between 1/4/2020 and 15/5/2020, was designed using Survey Monkey™ and distributed via mailing lists and social media to Obstetric and Gynaecology NCHDs in 19 Irish maternity units.

***Results***

Eighty NCHDs accessed the survey. Forty respondents participate in a training scheme, comprising 26% of the total. Most doctors reported major changes to work rostering (92%, 68/74); gynaecological services (76%, 56/74) and antenatal care (68%, 50/74). Up to April 22nd, 32% (11/34) reported PPE/masks use was recommended in antenatal clinics compared to 33% (11/33) throughout labour or in the second stage. From April 23rd, when HSE guidance on PPE changed, these figures increased to 74% (28/38, $p<0.001$) and 46% (17/37) respectively. Nearly all (96%, 68/71) felt their personal and family life was affected. The majority (89%, 63/71) felt their anxiety level was somewhat (44/71) or much higher (19/71) than that before the pandemic.

***Conclusion***

Many NCHDs felt their units were slow to implement protective measures including PPE use, and they had high levels of anxiety. These findings should inform decision-makers to mitigate the impact of psychological distress on healthcare workers in further crises.

## Introduction

The Corona Virus Disease 2019 (COVID-19) outbreak was declared a pandemic by the WHO on March 11, 2020. In Irish maternity units, responses were initially unit-specific, with hastily assembled multidisciplinary teams guiding healthcare practitioners and management in an unprecedented situation.

On March 9th, the Royal College of Obstetricians & Gynaecologists (RCOG) published National Guidance on managing coronavirus in pregnancy in the United Kingdom and the Institute of Obstetricians and Gynaecologists/Royal College of Physicians in Ireland produced guidelines for Irish maternity units on May 5th. [1,2]

In addition to the personal and societal concerns created by this rapidly evolving situation, the anxiety and distress of healthcare staff has been heightened by medical and professional uncertainty. While exact numbers remain unclear, thousands of healthcare workers worldwide have been infected with Covid-19 and many have died. Infection rates among Irish healthcare staff account for one-third of all Covid-19 infectons.[3]

## Methods

The aim of our study was to assess how Obstetrics and Gynaecology NCHDs viewed and were affected by measures taken in Irish maternity units in response to Covid-19 pandemic.

The survey (link) was carried out using Survey Monkey™ and comprised 31-questions [**Survey Link**]**.** It was distributed through mailing lists (Junior obstetrician and gynaecologist society) and social media across maternity units nationwide (reaching approximately 230 NCHDs) and was active from 21/4/2020 to 15/5/2020. The results were analysed using Microsoft Excel 365 and chi-square test was used to assess differences between two times points with a p value of 0.05 deemed statistically significant.

## Results

Eighty NCHDs accessed the survey link, giving a 35% response rate (80/230): six were excluded as they did not complete the survey. Sample comments are included below each section of results.

A quarter (26%, 40/153) of all NCHDs on the obstetrics and gynaecology basic (BSTs) or higher (HSTs) specialist training schemes filled the survey; at least one respondent from each unit replied [Figure-1]. NCHDs were more likely to be on training schemes (40/74) than not (34/74). Most were at registrar level (53/74), with over half (28/53) in the HSTS.

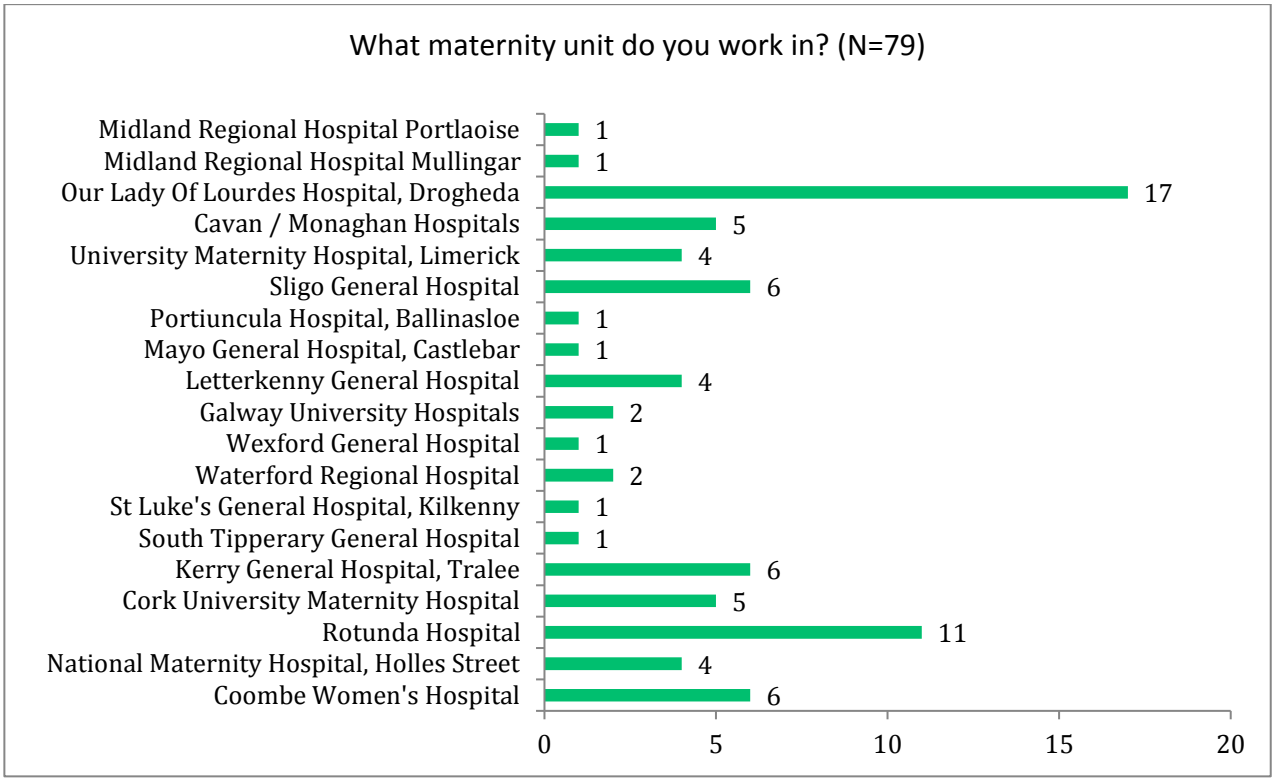


***Figure 1:*** *Responses from Maternity Units in Ireland.*

More than two-thirds (67%, 47/70) believed measures taken were adequate to protect staff. In total, 77% (54/70) felt they had received the necessary training. Most (80%, 6/70) believed reasonable personal protective equipment (PPE) had been provided for treating positive patients and 65% (48/74) felt that isolation facilities were adequate for staff protection. Furthermore, 70% (49/70) felt they received the correct level of support and guidance.

*NCHD roster changes*

Nearly all respondents (92%, 68/74) reported roster changes. These included reduced daytime staffing or additional back-up rotas. Many units moved from team-based to ward/clinical area-based care to reduce cross-contamination. Other units introduced 12-hour shifts with weekly rotations to different clinical areas and the fourth a “clean week”. Some NCHDs working in gynaecological units were redeployed to obstetric units. Three NCHDs were redeployed to non-maternity departments to look after COVID 19 positive patients, while nine anticipated future redeployment (17%, 12/71).

*Gynaecology services*

Three-quarters of NCHDs (76%, 56/74) said gynaecology clinics were virtual, with non-urgent visits and referrals postponed. Return gynaecological oncology services were significantly reduced with virtual clinics and a small number of urgent visits. Some units had a weekly emergency clinic for urgent cases and a virtual clinic for urgent referrals while cancelling all other appointments.

*Antenatal care*

Antenatal care had been modified according to 68% (50/74). Nearly all, 96%, (n = 71/74) said social distancing had been facilitated by staggering visits and not allowing partners and children to attend. Half of NCHDs, 51% (37/73) confirmed patient encounters were limited to 15 minutes, twenty percent (14/73) thought there was no time limit, and 30% (22/73) were unsure if one was in place. A further half (54%, 39/72) said PPE was recommended during antenatal care. Other measures included increasing numbers of clinics, especially offsite and outreach, spacing out appointments, rescheduling and virtual appointments. Some units experienced increased workload as General Practitioner practices and peripheral hospital outpatient departments closed.

Overall, most (76%, 55/72) felt that measures taken regarding antenatal care were sufficient. However, ten commented that maternity was slow to implement the use of masks/PPE in antenatal clinics:

> *"I strongly feel that the use of masks…should have been recommended in the national guideline. Obstetrics remained one of the only specialities where the same volume of patients was seen in clinics …for antenatal care. That is unique to our speciality and I believe that we asked our patients to feel safe presenting to hospital but did not take enough steps to protect them from potentially infected asymptomatic HCWs. We should have been wearing masks from the start."*
>
> *"Should be used in ANC. Felt I couldn't wear them until a few weeks into the pandemic when colleagues went off sick...it then became more acceptable"*
>
> *"More care and support for healthcare workers and sufficient PPE provision"*

Health Service Executive (HSE) advice on masks for patient encounters where social distancing was not possible changed on April 22nd, and findings before and after this change of advice were compared. Up to April 22nd inclusive, 35 NCHDs filled the survey. Only 11/34 (32%) said use of PPE/masks was recommended in a routine antenatal clinic. This increased to 74% (28/38) after April 22nd. This difference was statistically significant ($p<0.001$, chi-square).

*Labour and Delivery*

Many NCHDs (70%, 48/69) felt that COVID-19 did not affect care for labouring women. In most units, partners were not allowed onto wards or during induction of labour (94%, 67/71). Almost all noted that partners could attend delivery (97%, 69/71).

Over one-third (39%, 28/71) said the use of PPE in the labour ward for patient encounters was recommended; 46% (13/28) for all stages of labour and 54% (15/28) only in the second stage. Where PPE was used, it was mainly surgical masks (93%, 26/28), and eye protection (71%, 20/28).

In total, NCHDs from 12 units said that PPE was used throughout labour or at least for the second stage. However, NCHDs from the same unit in several cases said PPE was only used in positive or suspected cases.

Up to April 22nd, 33% (11/33) said their units used PPE throughout labour or at least in second stage. From April 23rd, this increased to 46% (17/37).

*Isolation facilities*

Most NCHDs (92%, 65/71) said their maternity units had their own isolation facilities for suspected or confirmed COVID-19 cases. One third (31%, 23/71) said their units had a separate COVID ward, while 63%, (45/71), said the isolation rooms were contained within existing clinical areas. Two of the units based in a general hospital shared a common COVID ward with the rest of the hospital.

*COVID-19 related training*

Most NCHDs (94%, 67/71) received COVID-19 related training. Topics included PPE (92%, 62/67), presentations and triaging of positive patients (48%, 32/67), obstetric emergencies (48%, 32/67), anaesthetic issues (37%, 25/67) and taking a COVID swab (31%, 21/67).

> *"Improved communication on new policies implemented in our hospital needs to happen"*

*NCHD Wellbeing*

Two thirds (62%, 44/71) felt their anxiety/stress levels were "slightly or somewhat higher" since the onset of the pandemic, while a quarter (27%, 19/71) felt it was "much higher", [Figure-2]. While the majority (59%, 42/71) had health concerns, 24% were "extremely concerned" [Figure-3]. However, half (51%, 36/71) were "extremely concerned" about their family members' health, [Figure-4]. Nearly all (96%, 68/71) felt their personal and family life was affected, more than half (56%, 40/71) to an 'extreme' degree.

> *'Unit effort has been impressive in supporting all its staff….'*
>
> *'It may not be perfect but hospital is doing the best they can with the infrastructure they have'*
>
> *'It's a very uncertain and fluid situation. More work needs to be done to look after psychological health of healthcare workers. I'm not sure if what we are doing is enough. It has started making me very anxious especially because I live on my own in this foreign land away from my loved ones…there are a lot of people in a similar situation. Consultants and team leaders should be trained to help keep the morale of junior doctors high. Unexpected shift works are common. It's just taking its toll on the mental health now, I feel'*

*'Our NCHD cohort were very disappointed by the leadership shown by our consultants - they gave us no guidance/training so we had to adjust our rota and figure out how to see/treat/manage Covid and? Covid patients ourselves. Communication was also very poor- new algorithms and policies were implemented without telling/explaining to NCHDs. NCHDs also expressed numerous concerns re: PPE only addressed in 6th week of lockdown'*

*'Social issues- childcare/commuting/making food for children with longer hours contributes to stress +++'*

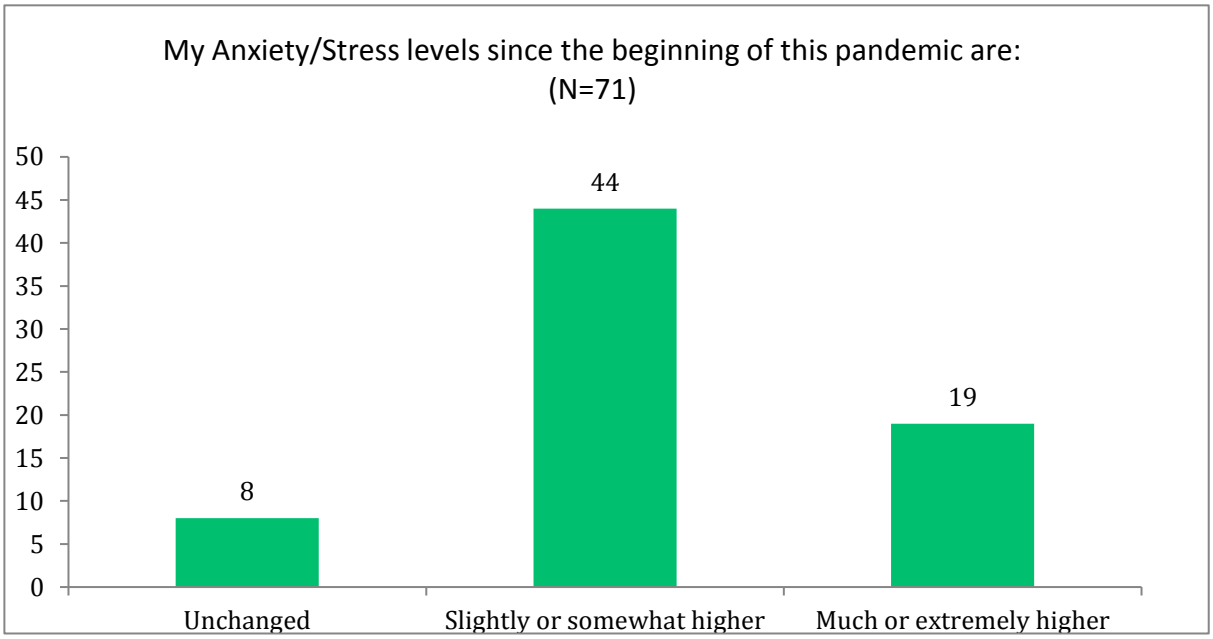


***Figure 2**: Anxiety level in NCHDs*

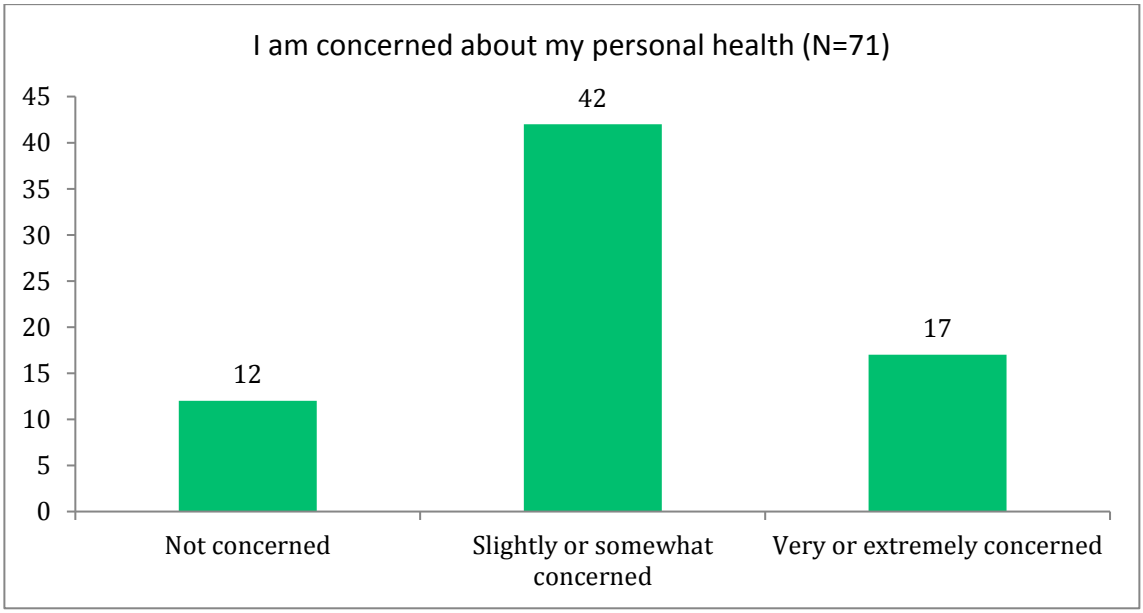


***Figure 3:** Concern regarding personal health among NCHDs*

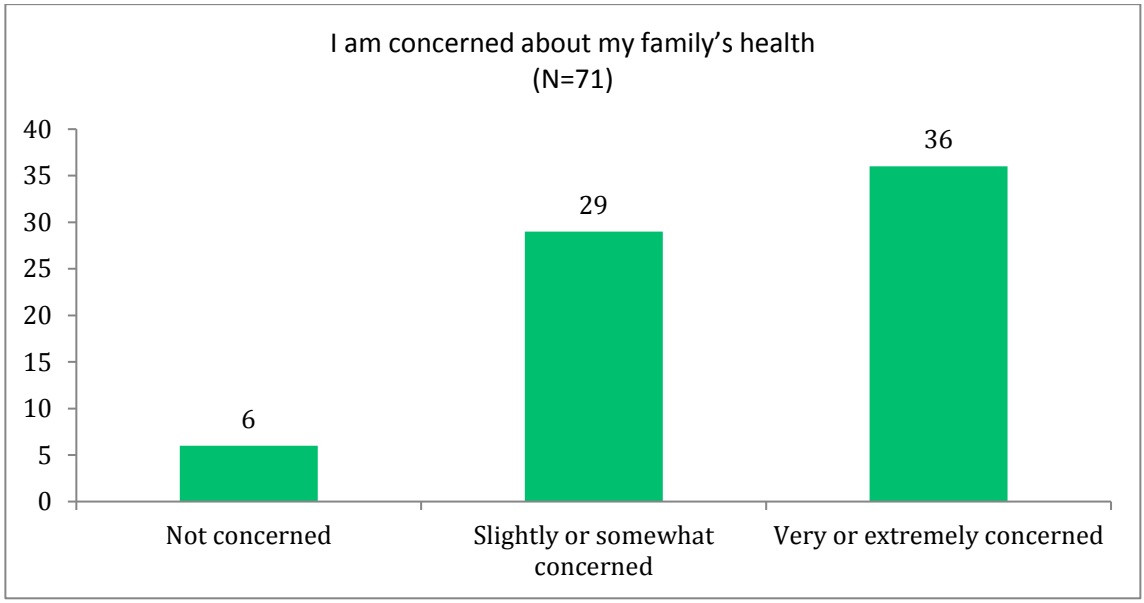


***Figure 4:*** *Concern about family's health among NCHDs*

**Discussion**

Maternity services require a multidisciplinary approach, and provision of high-quality care is dependent on a staff-rich environment. Accordingly, potential staff changes need careful consideration, even in the context of a pandemic. Since direct entry to midwifery education, a growing number of midwives have no general training, and most NCHDs have had little exposure to anaesthesia. Thus, training to facilitate the necessary redeployment in the Covid-19 response, has been an additional onus on staff.

Rosters were significantly remodelled in a bid to suppress transmission, and cancellation of elective surgical lists and outpatient activity allowed staff numbers to be reduced. The dramatic drop in emergency department presentations, due to patients' concern regarding contracting Covid-19, further reduced activity. Rostering models varied, with some allowing for a "clean" week at home: this was welcome at a time of a general embargo on annual leave.

The RCOG's guidance on coronavirus in pregnancy[1] is continuously updated as understanding of the virus develops, and the RCPI's guide[2] to obstetric management underlines the importance of staff wellbeing. Our survey was conducted after their publication, yet maternity units were reported as slow to implement protective measures, with many not confident in levels of protection. This corresponded not only to increased levels of NCHD anxiety, but also to high staff infectivity rates in their units: i.e. their fears were well-founded. Critical comments underscored the importance to staff morale of leadership and good communication in a crisis, some NCHDs felt they were less than adequate. Others noted the novelty of the pandemic and felt that protective measures were optimal. It is important to acknowledge that although the sample is likely to be generally representative of NCHDs, there may be a response bias, i.e. more anxious doctors may be more likely to respond to a survey which asks about their concerns.

The second stage of labour poses a high transmission risk, yet wearing a mask was initially discouraged. It is probable that NCHDs' anxiety in part reflected changing HSE recommendations on PPE. Prior to the change only one third said that PPE was routinely used for intrapartum and outpatient care. Although this improved, approximately half still noted no Delivery Ward-specific regulation on PPE. The increase was not as expected and could reflect slow uptake of the recommendation, or poor communication with NCHDs. That NCHDs from the same unit gave conflicting accounts, demonstrates variance in practise at least. Even after HSE guidance, labour wards have been slow to implement PPE use which is concerning given the proximity of staff to patients and corresponding infectivity risk.

Virtual clinics, with telephone consultations, avoid personal contact, and appear acceptable to patients. Face-to-face interactions are necessary for antenatal clinics, albeit with social distancing and mask wearing, but consultation times are curtailed. In some units a telephone conversation takes place after ultrasound and physical examination. The quality of communication and reassurance achieved versus in-person is unknown: non-verbal signs, and clues to domestic violence, may not be elicited, and women with any communication difficulty are disadvantaged. Finally, telemedicine has specific medicolegal issues.[4,5]

High levels of distress and burnout have been noted in healthcare workers internationally during the pandemic.[6,7,8,9,10] Depression, anxiety and insomnia were prominent in both Chinese[11] and Italian healthcare workers[12], and increased suicide rates have been reported in nurses across Europe.[13] Our survey chimes with this: NCHDs reported high levels of stress and anxiety, and concern was greatest for family. Foreign nationals working in Ireland might face additional stressors due to being away from their families and the inability to travel and might require more support. Our hospital conducted regular "Schwartz rounds" and "Coping with COVID'' workshops in association with psychiatry[14] and staff were notified of on-site psychological supports via email, but our evidence suggests that support was not consistent across the country. Our study may inform decision makers at all levels of hospital management and training bodies about the importance of interventions to mitigate the impact of sustained psychological distress on healthcare workers facing the possibility of another wave of infection.

**Declaration of Conflicts of Interest**:
All authors declare no conflict of interest

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