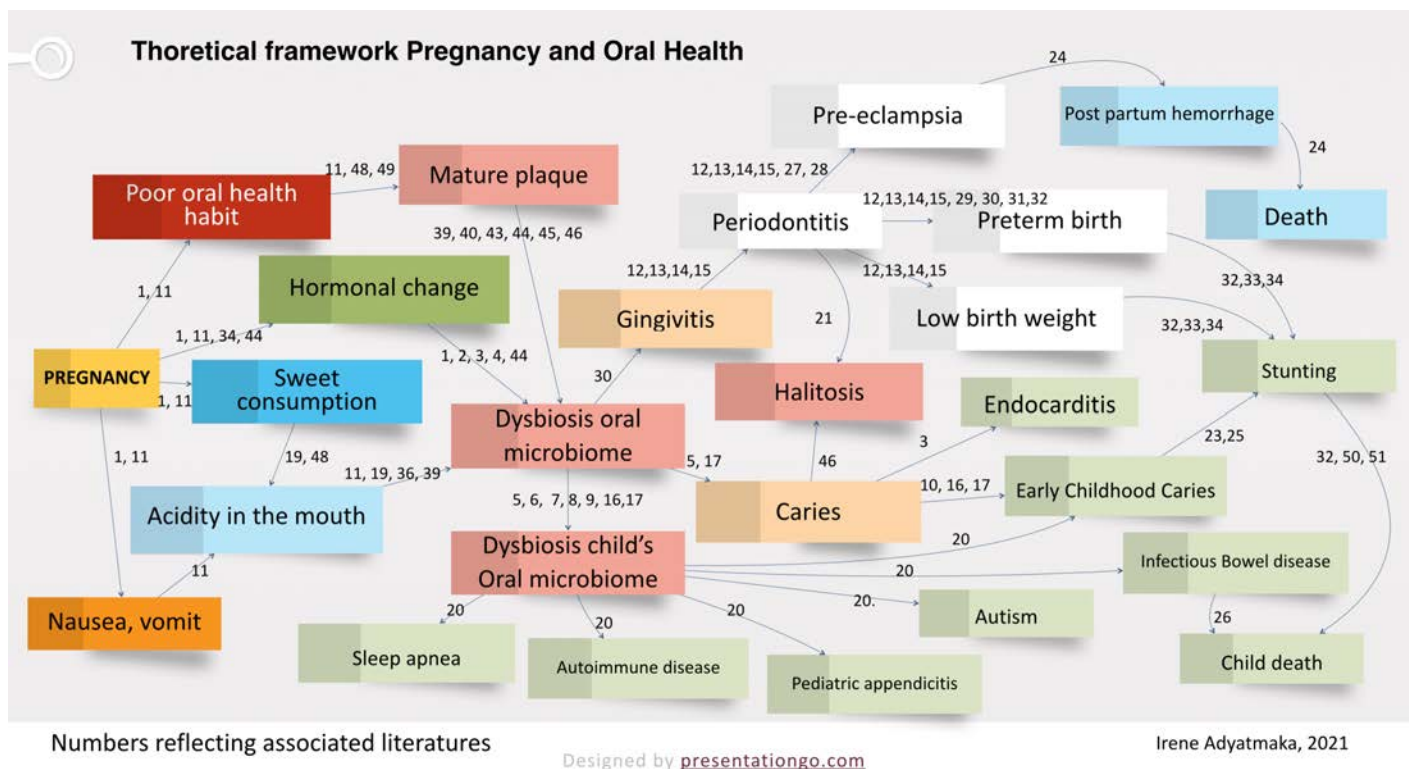




# INNOVATIVE ANTENATAL CARE

IRENE ADYATMAKA, ANDREAS ADYATMAKA, ADANG BACHTIAR





## Executive Summary

Sustainable Development Goals 2030 have put target the maternal mortality per 100,000 live birth is below 70. Maternal mortality in Indonesia is still high, 305 deaths in 2015 (SUPAS 2015). Major cause of maternal death in Indonesia were pre-eclampsia and post-partum bleeding. Theoretical framework above shown that there is an association between adverse pregnancy outcomes and periodontal problem. Therefore, Ante Natal Care Innovative project incorporates advancement oral health prevention into routine Ante Natal Care, with the goal of healthy pregnancy and reducing risk of adverse pregnancy outcomes. In West Kalimantan province, especially, maternal mortality has increased from year 2018 (86 deaths), 2019 (113 deaths) and 2020 (115 deaths). For this reason, in 2021 West Kalimantan decided to be the first province to implement ANC Innovative approach. There were several challenges in West Kalimantan, such as geographical challenging situation, accessibility to health centers, lack of health facilities, lack of community empowerment, lack of capacity of health workers, uneven numbers and distribution of health workers. Around 8% population still live below national poverty line and nearly 20% of births occurred without assistance from a skilled attendant. West Kalimantan has 14 health districts with a decentralized budgeting system.

Activity plan and timeline of ANC Innovative in West Kalimantan province would be as follows :

1. Initial survey of pregnant women oral health (April 2021, Site : Temajuk village, and found out that 100% pregnant women have decays and 85% suffer from gingivitis and dental calculus.)
2. Education materials / training modules preparation

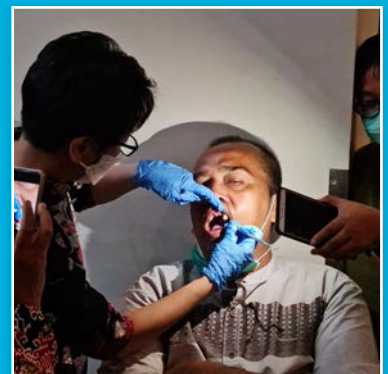


3. Advocation and Socialization (process to promote/ learn with certain behavior objectives to reach specific determined target) to chief health districts and related officers (21-23 October 2021)
4. 1st training of iANC team (consist of 1 midwife and 1 dental personnel, 2 team from each district) (24-26 October 2021)
5. 2nd training: Socialization to pregnant women and their husbands in Pontianak (22-24 November 2021) and Sintang (25-27 November 2021)
6. Field deployment of 28 iANC team, each team will manage 12 pregnant women (December 2021 onwards)
7. Evaluation

## Advocation to 14 Health Districts

The Ante Natal Care Innovative (iANC) project started from West Kalimantan province. This province has 14 health districts with decentralized budgeting system. To sustain this project for the next financial year, we have to win the support from every decision maker from each health district. So first as a first step, we decided to do advocaion to all the health districts. The provincial health district facilitated this effort by inviting each division head and section head from all 14 districts which are involved with an Antenatal care program. These people are responsible for planning and budgeting in their own district. The strong support from the provincial health office is an initial success factor, because Indonesia is a paternalistic country. The opening introduction by Dr Adang Bachtiar, Director Center for Health Administration and Policy Studies, Universitas Indonesia. It was delivered online using zoom platform in the first evening and was a useful ice break for all attendees. In total there were 56 offline attending and 100 online attending by zoom (midwives students and dental therapist students were following online). Offline speakers were Dr Irene Adyatmaka and Dr Tetty Sepriyanti, who started the next morning and worked through till late at night. Despite the late finishing time of 10 PM, people were still excited to follow through the whole process as oral health is important for everyone, not only for pregnant women. First step was to build their awareness and importance of having healthy teeth and mouth. We let them experience personally each of the intervention we will undertake with the pregnant women, so they know exactly how it feels, why it is important, and the urgency. Attendees did mouth self-checking, then uploaded a photograph of their mouth to survey link we provided.

*We want to be healthy and be important part of empowering others*





Map of Indonesia  
Credit : Alamy



14 districts in West Kalimantan











We found out that 70% of attendees were suffering from tooth decay, which highlight the challenge we faced that even health workers neglected their own oral health. But now after the socialization meeting, 100% of attendees think they need to move to the new approach, which highlight oral health as main entry to systemic health.

As we are still in Covid pandemic situation, all activities were carried out with strict health protocols, such as seating distancing, wearing mask, air disinfection and table cleaning every 2 hours, all meals provided in each of their hotel bedroom, fresh air circulated to meeting room using fan and exhaust, logistic prepared for every person.



## Training health personnel

The second important step was moulding the health personnel who will be involved in the day to day execution of the program. Personnel will work in teams to implement the Ante Natal Care Innovative with each team consisting one midwife and one dental professional (either dental therapist or dentist). Provincial Health district randomly selected 2 health centers in every district with each health center sending one team as requested. This method of "appointment" meant those who came were not coming by their own will and motivation.



There were several challenges that we anticipated with this approach and situation : (1) midwife and dental professional may never have worked in a team before. (2). ANC has always been midwives' exclusive area. (3) Midwives might think that adding oral health is an additional burden, (4) Dental professionals have only been involved in oral-screening before and might think this is a burden. So we anticipated facing a portion of attendees with "victim" thinking who, with whatever was offered, would become the victims (terminology by energy investment model, John Edmonstone, 2003). Analyzing the situation, we decided it was important to assign the first half day to creating the correct mindset. We played "helium stick" which taught attendees about the importance of teams, potential challenges working in a team, and the recipe to be successful as a team.



All the oral health education materials were shared with attendees using various games which required total active participation from the audience. Same as the Divisional Heads meeting, each participant experienced exactly the treatment that will be given to pregnant mothers, and 100% of attendees thought that the knowledge was very useful for their own health and families.



Fig. Participant pretending to be *Porphyromonas gingivalis*





Fig. We love our teeth



Both midwives and dental professionals felt very excited to learn about oral health delivered with this new approach. Actually, what was learned by them was simple, “back to basics” of oral care by evaluating their skillset in brushing. Yet this basic action when wrapped up within the advanced technologies of oral microbiome research, become a very important action. And reinforcing this message was their learning that 70% of the group also suffered from tooth decay, and from that awareness sorrow emerged that by neglecting their own general health and their family’s health. This gave them insight to consider their current way of practice, where tooth extraction become the solution, and to be motivated to preserve the teeth and put attention to disease prevention.

The series of oral interventions which attendees experienced and would be applied to pregnant mothers were (1) Diagnosing oral microbiome using three color plaque identification gel, (2) selecting correct tools / personalized toothbrush therapy based on the cases, (3) application of fluoride-CPP ACP varnish, (4) daily microbiome treatment using CPP ACP as prebiotic modulators, (5) restoration of decayed teeth using glass ionomer cement, (6) daily checklist of activities using Ante Natal Care Innovative book.

This concluded part one of the training session with the second part of the training to be completed next month, before all health workers then meet the pregnant women in real life situation. At this time in the process we had expected everybody would now dutifully study the education materials, however we could see attendees had progressed well beyond this. Everybody had become “A Player” with high energy and positive attitude to improve their own health and to implement the ANC Innovative strategy.

# Post 1st Socialization & Training Enthusiasm

## Initiative from each district

### Health District Sintang

Just one day after the first part socialization and training, health district Sintang had already gathered a meeting to discuss the budget for next financial year. This picture showing the excitement and commitment of health district Sintang.



In addition to the budget meeting, Health district Sintang also held socialization meeting with all health cadres in their area. Midwife Floria conducted the socialization.



### Health District Sambas

Their team of dental therapist and midwife, Khuswatun and Rosa, gathered the local pregnant mothers, gave socialization and successfully gained their commitment.

In addition, as follow up of the training they received, they also shared their new knowledge to all health workers in their health centres.







### Health District Bengkayang



A team of dentist Dr Lesningatie and midwife Mariana gathered all midwives in their area and educated them about the Ante Natal Care Innovative. They also give heads up for all midwives to check on the oral health of pregnant women during their first visit.



### Health district Kubu Raya

Two teams of dentist Dr Ardesy, dental therapist Anita, and midwife Liu Lona, midwife Melyati designed a meeting to socialize ANC Innovative to all midwives.



### Health district Singkawang

The team of dental therapist Hazliana and midwife Sri Budiarsih gave socialization to midwives in their area.



### Health district Melawi

Socializing to pregnant mothers was undertaken in group meeting and one-on-one by a team from Melawi District, Dr Badaria, dental therapist Japri, midwife Ermia and Hetty.





Health district Mempawah





Under the leadership of Dr Ety, dental therapist Novia, midwife Nurul and midwife Halimah, health district Mempawah progressed with several activities. They started by building commitments from surrounding health centers at village level by involving many stake holders and empowering them to mobilize themselves.

### Health District Pontianak city

Health district Pontianak under Dr Amanda, dental therapist Syahrul, midwife Titin and Risti, decided to started first with socialization to entire staff at their health center and then continued with socialization of pregnant women.



### Health District Kapuas Hulu

A team of Dr Andhinda, dental therapist Joko Riyono, midwife Kristine and Rency made a comprehensive follow up plan of socializing to various stake holders.





# Initiative Title

iANC for Indonesian Health Development with Family Approach Innovation

## Responsible Health Officer

Dr. Harisson, MD, MPH

Head of Health Office - West Kalimantan Province

## Global Advisor

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Senior Advisory Board Global Oral Health Interest Group, CUGH

Dr. Keith Martin MD, PC

Executive Director Consortium of Universities for Global Health (CUGH)

## National Advisory Board

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President Indonesian Dental Association

## Provincial Advisor

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Head of Health Care Division, Provincial health office

## District /City Advisors

14 head of public health division

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## Editor

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