

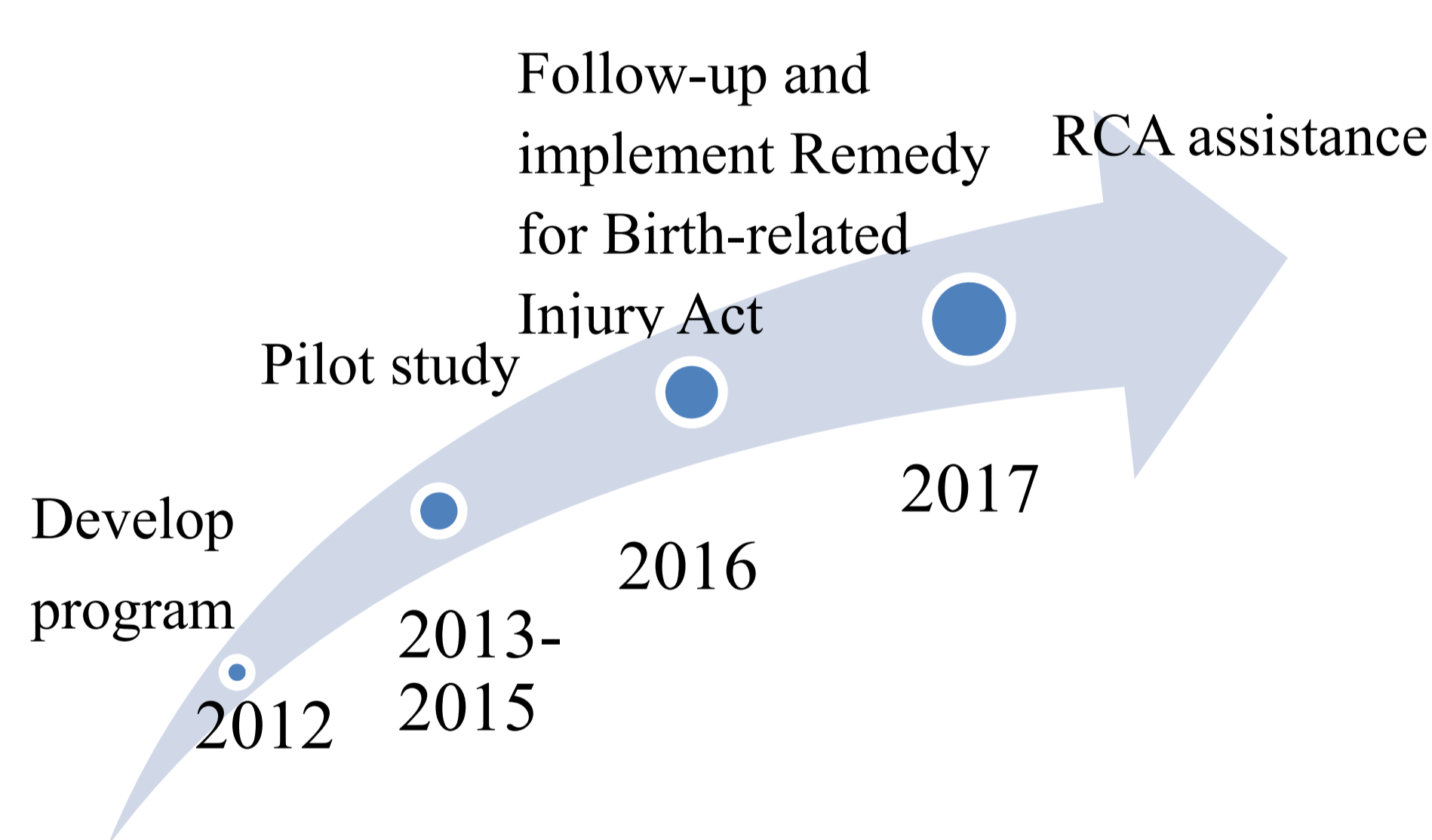
# The Effect of Birth-related Injury Events Pilot Program in Taiwan

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## Introductions

One of UN goals Sustainable Development Goals (SDGs) in 2016 is ensure healthy lives and promote well-being for all at all ages including reproductive, maternal and child health. Taiwan Ministry of Health and Welfare (MOHW) conducted a program called "Birth-related Injury with No-fault Liability Events Compensation Program" since 2012. The pilot program aimed to reduce medical disputes or lawsuits, and promote institutions' medical quality. Joint Commission of Taiwan (JCT) assisted institutions with on-site visit, obstetric and gynecological conference, and case discussion. We want to know whether we really help institutions. The study aimed to explore the effect of this pilot program in Taiwan.

Figure 1. Introduce of Birth-related Injury with No-fault Liability Events Compensation program from 2012 to 2017.



## Methods

The study was a longitudinal study from 2012 to 2016. We conducted the follow-up survey which institution's previous on-site visit score lower than 80, the institution should be follow-up by on-site visit again. There were included 25 institutions. We evaluated them by 10 standards, include management and medical care dimensions. The management standards include employee education, facility and environment safety. Then medical care standards include medication safety, anesthesia and surgical care. Paired t-test was applied to identify which institution had advanced or not. SAS version 9.3 was used for data analysis.

Table 1. Standards of on-site visit.

Standard	Dimension
<b>Chapter 1. Management</b>	
1.1	Announce service and implement legality
1.2	Employee education
1.3	Healthcare-related infection control
1.4	Environment safety
1.5	Facility maintain annually
<b>Chapter 2. Medical care</b>	
2.1	Patient characteristics
2.2	Letter of consent for surgery and anesthesia
2.3	Surgical record
2.4	Medication safety
2.5	Referral emergency patient

## Results

The first on-site visit average score was 74.2 of these 25 institutions; the second on-site visit average score was 85.8 of the same institutions. Then analyze the second score was significantly higher than the first score in overall ( $t=6.1$ ,  $p<0.0001$ ), healthcare-related infection control ( $t=3.1$ ,  $p=0.0032$ ), evaluated patient characteristics ( $t=2.39$ ,  $p=0.0206$ ), the letter of consent for surgery and anesthesia ( $t=4.38$ ,  $p=0.0001$ ), and surgical record ( $t=3.79$ ,  $p=0.0004$ ).

Table 2. The effect of "Birth-related Injury with No-fault Liability Events Compensation Program.

	Average score	T	P-value	
<b>Overall</b>				
First	74.2	6.1	<0.0001	***
Second	85.8			
<b>Announce service and implement legality</b>				
First	9.8	1	0.3223	
Second	10			
<b>Employee education</b>				
First	7.2	1.42	0.1624	
Second	8.2			
<b>Healthcare-related infection control</b>				
First	7	3.1	0.0032	**
Second	9			
<b>Environment safety</b>				
First	7.8	0.86	0.3924	
Second	8.4			
<b>Facility maintain annually</b>				
First	7.2	1.42	0.1624	
Second	8.2			
<b>Patient characteristics</b>				
First	7.2	2.39	0.0206	*
Second	8.8			
<b>Letter of consent for surgery and anesthesia</b>				
First	5.2	4.38	<.0001	***
Second	7.6			
<b>Surgical record</b>				
First	6.2	3.79	0.0004	***
Second	8.6			
<b>Medication safety</b>				
First	7	0.56	0.578	
Second	7.4			
<b>Referral emergency patient</b>				
First	9.6	0	1	
Second	9.6			

\* $p<0.05$ , \*\* $p<0.01$ , \*\*\* $p<0.001$

## Conclusion

Overall, institutions obviously progress than previous performance. Between two on-site visits, JCT conducted several conferences and promoted them to discuss the injury events. The topics of conferences were about which institutions needed reinforcement. Then we invited who was great in associated topics and share their experience to other institutions. Through this study, it also figure out the suggestion of on-site visit really helpful to those institutions. They improved and maintained their medical quality. The success of "birth-related injury with no-fault liability events compensation program" would be a benchmarking. It expanded the scope to surgical and anesthetic adverse event disputes in 2014. In the other hand, it announced Remedy for Birth-related Injury Act in 2015 to protect all pregnant women in Taiwan. In the future, the welfare program could spread to every division, to protect patients, medical staffs, and medical institutions.

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