

Laboratory Services    Sterile Processing    Supply Chain Management    Biomedical Engineering    Accounting Services

**N Health**  
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## Strengthening Thailand's Influenza Surveillance Network

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Bangkok Hospital Samui Site Manager  
Koh Samui Thailand



## Koh Samui Overview



*Climb to the top, Some magic from above*  
Photograph by Panuvat Eurchananon, Mu Koh Ang Thong National Park, Suratthani  
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## Koh Samui Overview



ปะการังงาม น้ำทะเลใส หาดทรายขาว  
มะพร้าวเยอะ

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## Koh Samui Overview

พื้นที่	252	<a href="#">ตร.กม.</a>
ประชากร	53,990	คน( <a href="#">พ.ศ. 2552</a> )
ความหนาแน่น	214.24	คน/ <a href="#">ตร.กม.</a>



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## Koh Samui Overview

อำเภอเกาะสมุยแบ่งเขตการปกครองออกเป็น 7 ตำบล 39 หมู่บ้าน ได้แก่

1.อ่างทอง (Ang Thong)	6 หมู่บ้าน
2.ลิปะน้อย (Lipa Noi)	5 หมู่บ้าน
3.ตลิ่งงาม (Taling Ngam)	5 หมู่บ้าน
4.หน้าเมือง (Na Mueang)	5 หมู่บ้าน
5.มะเร็ต (Maret)	6 หมู่บ้าน
6.บ่อผุด (Bo Phut)	6 หมู่บ้าน
7.แม่น้ำ (Mae Nam)	6 หมู่บ้าน



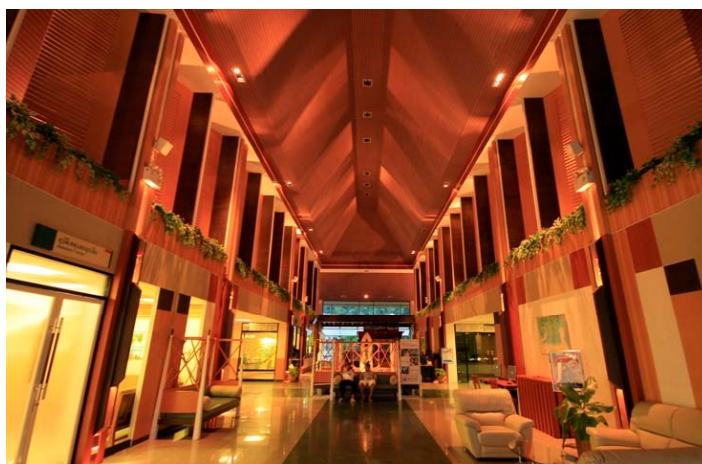
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## Bangkok Hospital Samui



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## Bangkok Hospital Samui



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## Bangkok Hospital Samui



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## Bangkok Hospital Samui

### Bangkok Hospital Samui

- 50-beds
- Secondary healthcare facility
- ISO certified Hospital and on going JCI Standard
- We are providing more than 25 highly trained specialist and physicians



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## Bangkok Hospital Samui



### Bangkok Hospital Samui

- OPD Total Average 3,000 cases/Month
- IPD Average 25 case
- 60% of patients are foreigners



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## Bangkok Hospital Samui



### Top 5 foreigner segmented visit BSH

1. Germany
2. England
3. Australia
4. France
5. Russia
6. Sweden



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## Bangkok Hospital Samui Team



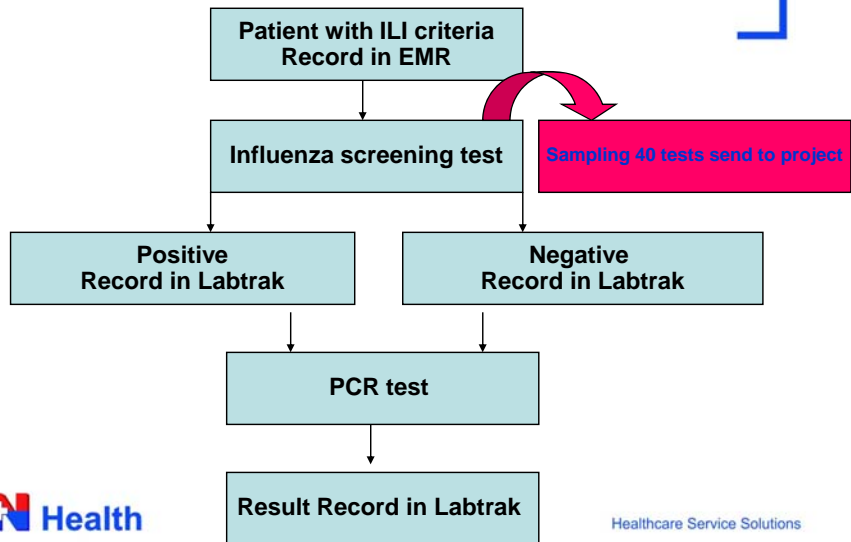
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## Working Team



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## BSH Influenza surveillance workflow



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## BSH ILI Visit

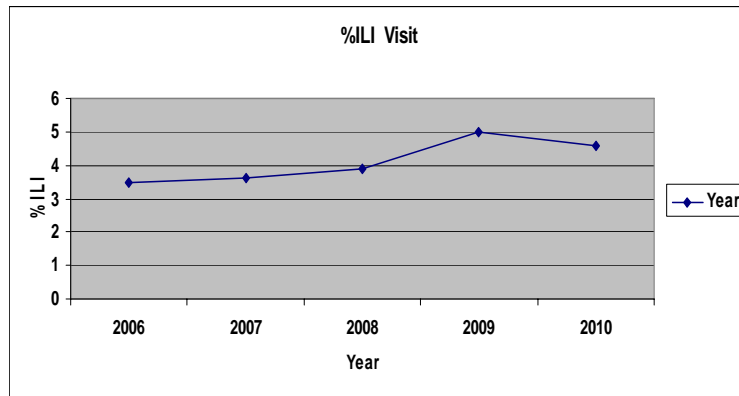
Year	2006	2007	2008	2009	2010
OPD (Yr.)					
- Total	23,694	25,996	34,165	37,786	30,137
- ILI	838	947	1,340	1,896	1,399
- /Mo.	69.8	78.9	111.7	158	116.6



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## BSH % ILI Visit



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## Monthly Influenza Isolation Year 3

Year 3 ( 15 Sep 2006 - 14 Sep 2007 )

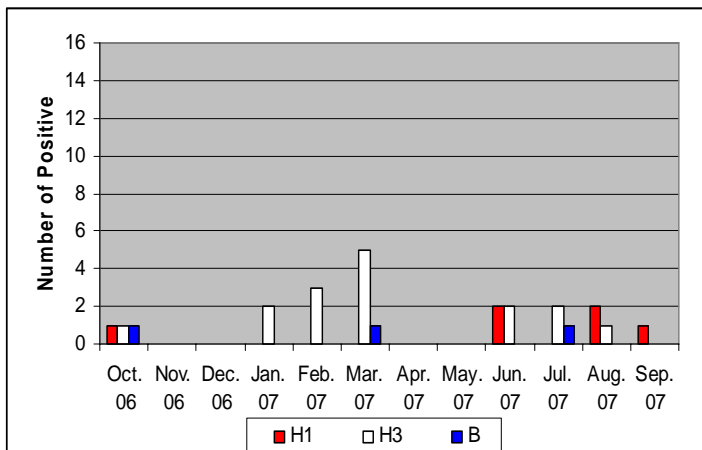
No. positive (12.6%)

	Year 3 ( 15 Sep 2006 - 14 Sep 2007 )			No. positive (12.6%)		
	No.test	No.Pos.	% Pos.	H1	H3	B
Oct. 06	19	3	15.8	1	1	1
Nov. 06	6	0	0.0	0	0	0
Dec. 06	8	0	0.0	0	0	0
Jan. 07	5	2	40.0	0	2	0
Feb. 07	15	3	20.0	0	3	0
Mar. 07	18	6	33.3	0	5	1
Apr. 07	6	0	0.0	0	0	0
May. 07	8	0	0.0	0	0	0
Jun. 07	30	4	13.3	2	2	0
Jul. 07	48	3	6.3	0	2	1
Aug. 07	26	3	11.5	2	1	0
Sep. 07	10	1	10.0	1	0	0
<b>Total</b>	<b>199</b>	<b>25</b>	<b>12.6</b>	<b>6</b>	<b>16</b>	<b>3</b>



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## Monthly Influenza Isolation Year 3



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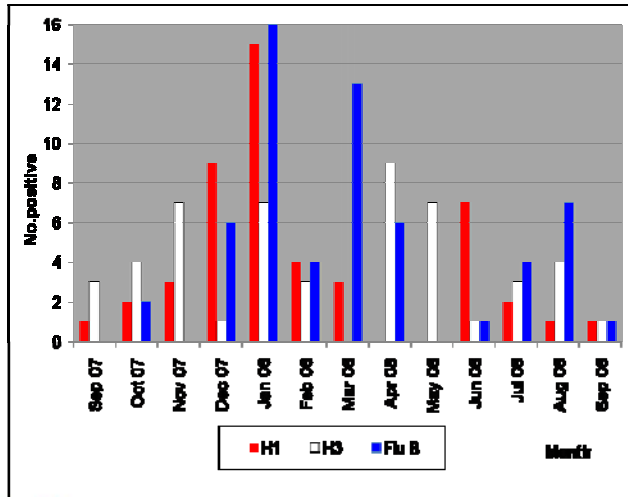
## Monthly Influenza Isolation Year 4

	Year 4 (16 Sep 07 - 14 Sep 08)			No. positive (17.3%)		
	No. sent	No. pos	%pos	H1	H3	Flu B
Sep 07	28	4	14.3	1	3	0
Oct 07	37	8	21.6	2	4	2
Nov 07	45	10	22.2	3	7	0
Dec 07	69	16	23.2	9	1	6
Jan 08	118	38	32.2	15	7	16
Feb 08	90	11	12.2	4	3	4
Mar 08	83	16	19.3	3	0	13
Apr 08	66	15	22.7	0	9	6
May 08	56	7	12.5	0	7	0
Jun 08	92	9	9.8	7	1	1
Jul 08	115	9	7.8	2	3	4
Aug 08	91	12	13.2	1	4	7
Sep 08	25	3	12.0	1	1	1
<b>Total</b>	<b>915</b>	<b>158</b>	<b>17.3</b>	<b>48</b>	<b>50</b>	<b>60</b>



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## Monthly Influenza Isolation Year 4



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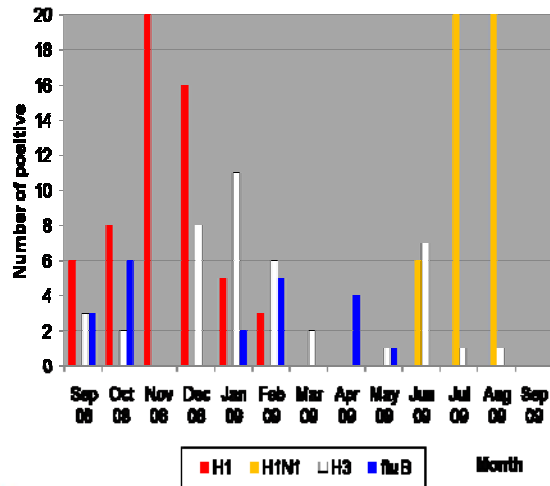
## Monthly Influenza Isolation Year 5

Year 5 (15 Sep 08 - 14 Sep 09)				No. positive (15.7%)			
Month	No. test	No. pos	%pos	HI	HI/NI	H3	Flu B
Sep 08	48	12	25.0	6	0	3	3
Oct 08	78	16	20.5	8	0	2	6
Nov 08	91	21	23.1	21	0	0	0
Dec 08	110	24	21.8	16	0	8	0
Jan 09	121	18	14.9	5	0	11	2
Feb 09	85	14	16.5	3	0	6	5
Mar 09	62	2	3.2	0	0	2	0
Apr 09	81	4	4.9	0	0	0	4
May 09	91	2	2.2	0	0	1	1
Jun 09	108	13	12.0	0	6	7	0
Jul 09	148	39	26.3	0	29	1	0
Aug 09	78	21	26.9	0	20	1	0
Sep 09	28	0	0.0	0	0	0	0
<b>Total</b>	<b>1129</b>	<b>177</b>	<b>15.7</b>	<b>59</b>	<b>55</b>	<b>42</b>	<b>21</b>



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## Monthly Influenza Isolation Year 5



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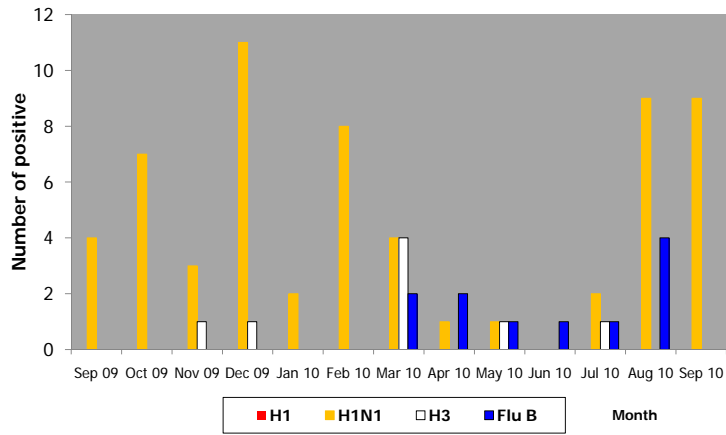
## Monthly Influenza Isolation Year 6

Year 6 ( 15 Sep 09 -14 Sep 10)				No. positive (18.3)			
Month	No. test	No. pos	%pos	H1	H1N1	H3	Flu B
Sep 09	25	4	16.0%	0	4	0	0
Oct 09	46	7	15.2%	0	7	0	0
Nov 09	34	4	11.8%	0	3	1	0
Dec 09	34	12	35.3%	0	11	1	0
Jan 10	30	2	6.7%	0	2	0	0
Feb 10	39	8	20.5%	0	8	0	0
Mar 10	36	10	27.8%	0	4	4	2
Apr 10	32	3	9.4%	0	1	0	2
May 10	35	3	8.6%	0	1	1	1
Jun 10	37	1	2.7%	0	0	0	1
Jul 10	34	4	11.8%	0	2	1	1
Aug 10	44	13	29.5%	0	9	0	4
Sep 10	12	9	75.0%	0	9	0	0
<b>Total</b>	<b>438</b>	<b>80</b>	<b>18.3%</b>	<b>0</b>	<b>61</b>	<b>8</b>	<b>11</b>



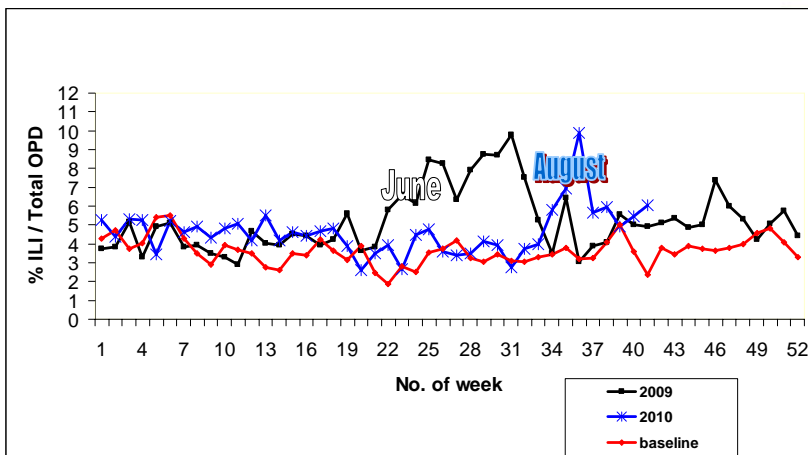
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## Monthly Influenza Isolation Year 6



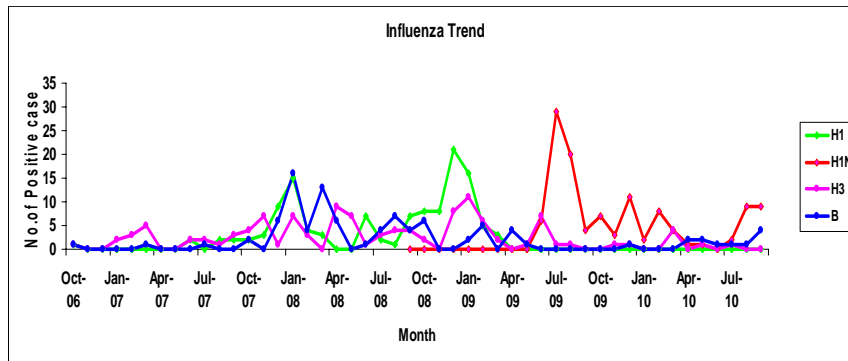
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## BSH Surveillance



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## BSH Influenza Trend



Remark : Project start PCR test June 2009



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## Observation

### Advantage

- Share knowledge
- Medicine and medical supply preparation

### Disadvantage

- Duplicate process



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Let Synergy create great Symphony



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