

Apego Neonatal Seguro

Dr Sergio Ambiado

SIDS and Other Sleep-Related Infant Deaths: Evidence Base for 2016 Updated Recommendations for a Safe Infant Sleeping Environment

Rachel Y. Moon, MD, FAAP, TASK FORCE ON SUDDEN INFANT DEATH SYNDROME

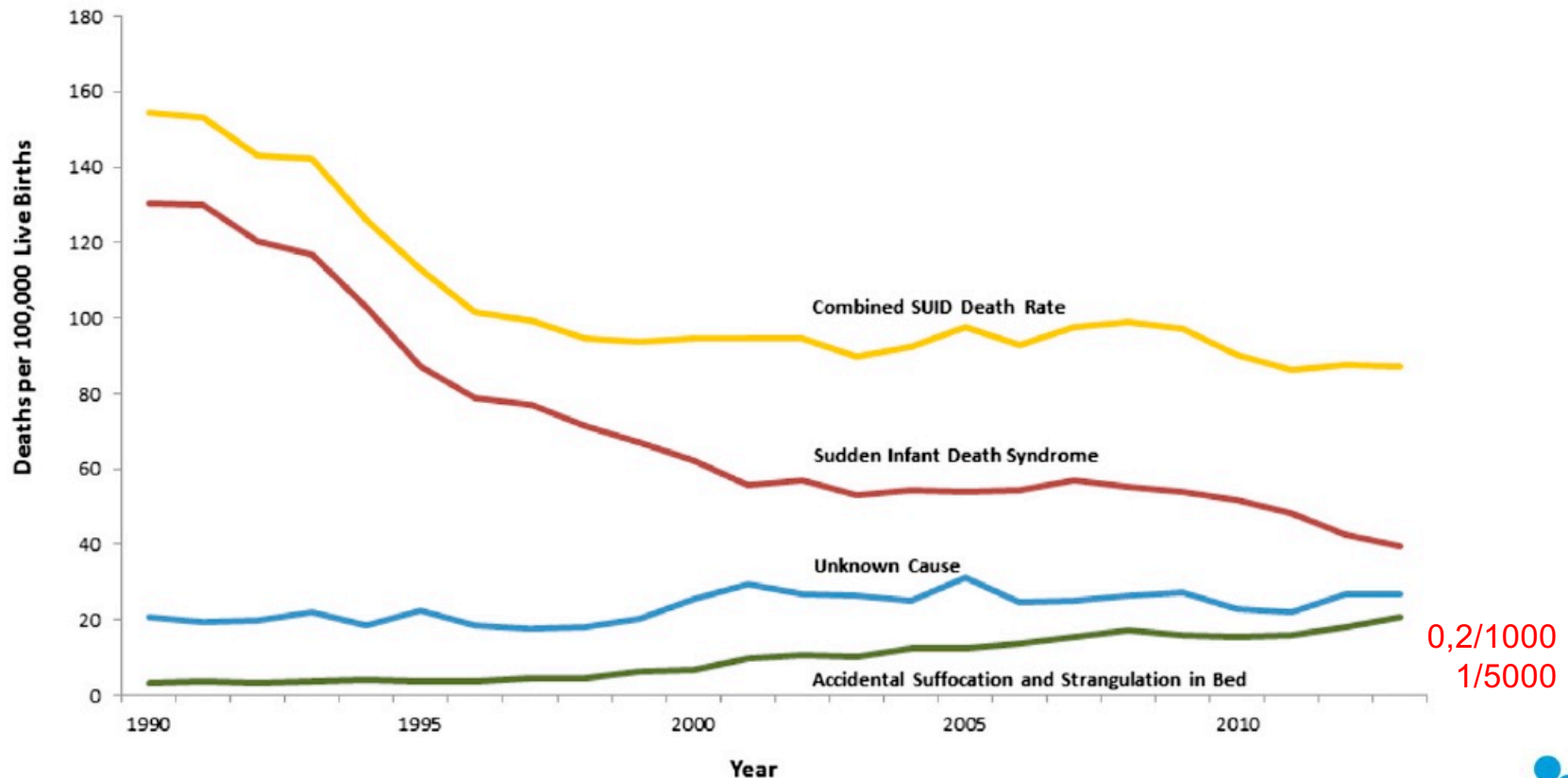


FIGURE 1

Trends in SUID by cause, 1990–2013. Source: Centers for Disease Control and Prevention/National Center for Health Statistics, National Vital Statistics System, compressed mortality file. (Figure duplicated from <http://www.cdc.gov/sids/data.htm>.)

Trends in the Incidence of Sudden Unexpected Infant Death in the Newborn: 1995-2014

Joel L. Bass, MD1, Tina Gartley, MD1, David A. Lyczkowski, MD1, and Ronald Kleinman, MD2
J of Pediatrics 2017

Figure 2. US postneonatal/neonatal SUID rates per 100 000 births, 1995-2014. (Source: CDC WONDER Linked Birth/Infant Death Records.)

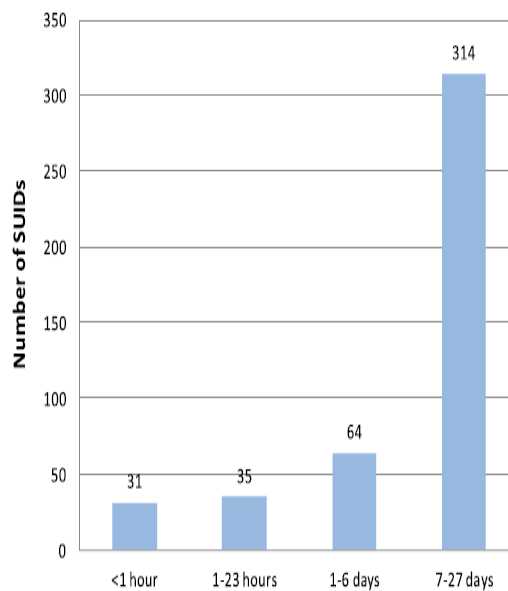
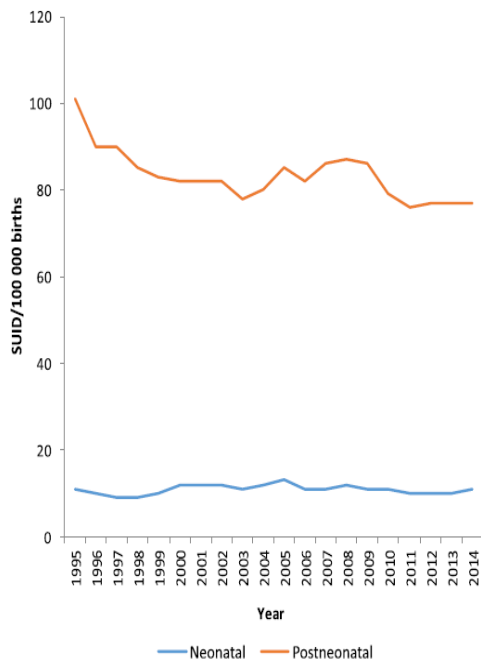


Figure 1. US average annual neonatal SUIDs, 1995-2014. (Source: CDC WONDER Linked Birth/Infant Death Records.)

Figure 3. US percent SUID neonatal and postneonatal, 1995-2014. (Source: CDC WONDER Linked Birth/Infant Death Records.)

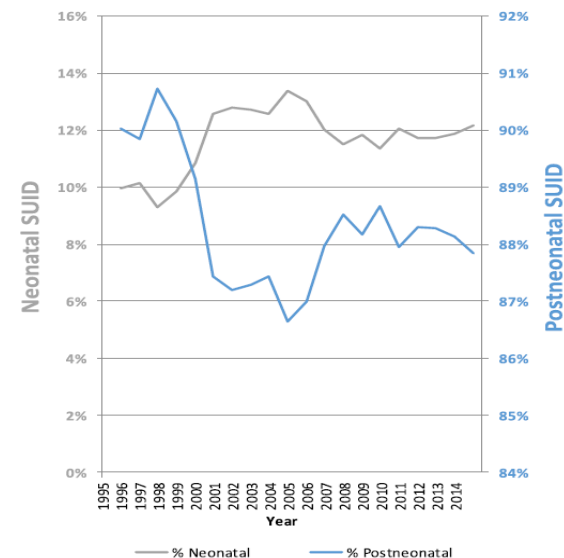


Table 3 Reported postnatal age of sudden unexpected postnatal collapse (SUPC)

Reference	Number of infants	Included PN age	<2 h	2–24 h	24–72 h	4–7 days
Polberger and Svenningsen [5]	13 ^b	6–100 h	NA	1	9	3
Burchfield and Rawlings [46]	10	15–86 h	NA	4	6	1
Dehan et al. [10]	31	≤7 days	1	14	11	5
Rodriguez-Alarcon et al. [21]	29	≤72 h	9	8	12	NA
Grylack and Williams [18]	20	≤72 h	0	10	10	NA
Obonai et al. [27]	9 ^c	≤10 days	0	3	5	1
Kuhn et al. [38]	2	≤2 h	2	NA	NA	NA
Gatti et al. [16]	6	≤2 h	6	0	NA	NA
Espagne et al. [15]	2	≤2 h	2	NA	NA	NA
Inwald et al. [45]	3	≤7 days	0	0	0	3
Toker-Maimon et al. [47]	2	≤2 h	2	NA	NA	NA
Aboudiab et al. [48]	2	≤2 h	2	NA	NA	NA
Branger et al. [49]	11	≤7 days	4	4	1	1
Foran et al. [22]	12	≤3 days	7	4	1	NA
Dageville et al. [17]	2	≤2 h	2	NA	NA	NA
Nakamura and Sano [50]	1	≤2 h	1	NA	NA	NA
Peters et al. [4]	5	≤12 h	3	2	NA	NA
Schrewe et al. [51]	1	≤2 h	1	NA	NA	NA
Rodriguez-Alarcon et al. [23]	5	≤2 h	5	NA	NA	NA
Rodriguez-Alarcon et al. [23]	8	≤2 h	8	NA	NA	NA
Andres et al. [2]	6	≤2 h	6	NA	NA	NA
Poets et al. [3]	17	≤24 h	9	8	NA	NA
Leow and Platt [11]	30	≤7 days	3	4	10	13
Becher et al. [6]	45	≤12 h	29	16	NA	NA
Tsao et al. [19]	17	≤7 days	1	7	8	1
Poets et al. ^a [12]	17	≤24 h	17	NA	NA	
Total	306	0–7 days	103,	85,	73,	28,
Percentage of reported cases			36 %	29 %	24 %	9 %

Sudden Unexpected Postnatal Collapse of Newborn Infants: A Review of Cases, Definitions, Risks, and Preventive Measures

Eric Herlenius • Pierre Kuhn

- SUPC: Sudden Unexpected Postnatal Collapse
 - ALTE: apparent life-threatening event
 - SUEND: SUDI < 7d

Table 4 Potentially preventable SUPC etiologies

Etiology to SUPC event	<i>N</i>	Reference
Infection	26	[5, 6, 10, 12, 15, 19, 45]
Cardiac disorder	18	[5, 6, 10, 19]
PPHN respiratory disorder	14	[6, 10, 12, 22]
Metabolic defects	10	[1, 6, 11, 19]
Anemia	3	[5, 6]

Hospitalización por episodios de cianosis en recién nacidos de edad gestacional igual o mayor a 34 semanas

Casanueva* P, Cifuentes J

Rev. chil. pediatr. vol.86 no.4 2015

- Período: 2007 – 2012
- 98 RN (0,6% RN)
- La edad promedio al ingreso fue de $1,9 \pm 1,4$ días
- EG: $37,8 \pm 1,4$.
- 15% < 37 semanas
- Hospitalización: $4,2 \pm 4$ días

Tabla 2 Etiologías identificadas

Diagnóstico	N (% ^a)
Síndrome convulsivo	7 (33,3)
Reflujo gastroesofágico	3 (14,2)
Trastorno succión-deglución	3 (14,2)
Comunicación interventricular	2 (9,5)
QT largo	1 (4,8)
Traqueomalacia	1 (4,8)
Encefalitis por herpes	1 (4,8)
Accidente vascular hemorrágico	1 (4,8)
Infarto cerebral	1 (4,8)
Laringomalacia	1 (4,8)
Total	21 (100)

^a Indica el porcentaje de cada tipo diagnóstico respecto del total de casos diagnosticados.

Unexpected collapse in apparently healthy newborns – a prospective national study of a missing cohort of neonatal deaths and near-death events

Julie-Clare Becher,¹ Shetty S Bhushan,² Andrew J

Arch Dis Child Fetal Neonatal Ed 2012;**97**:F30–F34.



- SUPC (< 12 h): 5/100.000 RNT
 - 25% fallece
 - 1/3 tiene una codición patológica subyacente
 - > 50% ocurren por sofocamiento accidental
 - Frecuentemente no es reconocido por los padres
-
- Observen como está nariz y boca del RN

■ **Figure 1** Unrecognised postnatal collapse. Reprinted with courtesy of the Swiss Society of Neonatology and with written permission of parents. Photograph taken by the father.

Table 1 Specified causes of collapse

No underlying disease/abnormality determined	30 infants	Died	Abnormal neurological examination by 1 year
Apparent accidental suffocation during breast feeding or skin-to-skin	24 (80%)	5	5
No cause identified	6 (20%)	1	0

Disease or abnormality	15 infants	Died	Abnormal neurological examination by 1 year
Bacterial pneumonia/sepsis (2 Group B streptococcus, 3 culture negative)	5	2	1
Cardiac (transposition of the great arteries, hypoplastic left heart syndrome)	2	2	0
Metabolic disorder (Zellweger’s syndrome, unidentified disorder)	2	1	1
Intracranial haemorrhage/infarction	2	0	1
Meconium aspiration syndrome	2	0	0
Severe chronic anaemia (parvovirus)	1	1	0
Congenital diaphragmatic hernia	1	0	0

Table 2 Circumstances of collapse

Details of collapse	Underlying condition (15)	No underlying condition (30)
Age in minutes (median (range))	195 (10–688)	70 (6–643)
Collapse in first 2 h	7 (47%)	22 (73%)
Baby in care of mother/parents at collapse	13	24
Mother alone in room at time of collapse	7	10
Mother recognised baby unwell	3 (43%)	2 (20%)
Parents alone in room at time of collapse	1	7
Parents recognised baby unwell	1 (100%)	5 (71%)
Clinical staff in room at time of collapse	7	13
Staff first to recognise baby unwell	7 (100%)	13 (100%)
Position of baby		
Mother’s breast/chest/abdomen (prone or side)	3 (20%)	18 (60%)
Arms	3 (20%)	9 (30%)
In cot (1 prone)	6 (40%)	3 (10%)
Uncertain position	3 (20%)	0

Apparent Life-Threatening Events in Presumably Healthy Newborns During Early Skin-to-Skin Contact

Andres V, García P, Nicaise C, et al.

Pediatrics 2011;127: e1073–e1076

TABLE 1 Main Perinatal Characteristics of 6 Cases of ALTEs During the First 2 Hours After Birth

	Case 1	Case 2 *	Case 3 *	Case 4	Case 5	Case 6 *
Maternal age, y	39	31	23	27	25	25
Maternal antecedents	G2P0	G2P0	G1P0, Leiden factor V mutation	G2P1	G2P1	G1P0
Pregnancy	Uneventful	PROM	Twin pregnancy	Gestational diabetes mellitus (insulin)	Uneventful	PROM
Vaginal delivery	Spontaneous	Spontaneous	Instrumental	Spontaneous	Spontaneous tinted AF	Spontaneous
Gestational age, wk	39	40	36 $\frac{6}{7}$	36 $\frac{6}{7}$	36 $\frac{6}{7}$	40 $\frac{7}{7}$
Infant weight, g	2930	4280	2680	2800	2750	3340
Apgar score at 5 and 10 min						
5 min	10	10	10	10	10	10
10 min	10	10	10	10	10	10

Prevention of infection risk was conducted with appropriate maternal antibiotics in each case. G indicates gravida; P, para; PROM, >2-hour premature rupture of membranes; AF, amniotic fluid.

Contacto post parto 30 min (DEIS 2018)

		Contacto mayor a 30 minutos (RN con peso de 2.500 grs. o más)	
NORMAL/VAGINAL	79.919	69.390	87%
DISTÓCICO VAGINAL	3.672	2.196	60%
CESÁREA ELECTIVA	24.378	16.267	67%
CESÁREA URGENCIA	36.165	16.617	46%



Unintended Consequences of Current Breastfeeding Initiatives.

Bass, J, Gartley T, Kleinman R. JAMA Pediatrics. Agosto 22; 2016

- Recomendación de contacto piel con piel inmediatamente después del parto, por la primera hora al menos
- 400 casos de Colapso Neonatal Súbito No explicado (SUPC) o Eventos Breves Resuelto No explicados (BRUE)
- Incidencia: 2,6 – 133 /100.000 RN
- 1/3 en primeras 2 h.
- 50% mortalidad y daño permanente en la mayoría de los sobrevivientes

Infant Assessment and Reduction of Sudden Unexpected Postnatal Collapse Risk During Skin-to-Skin Contact

Susan M. Ludington-Hoe, PhD, RN, CNM, CKC, FAAN; Kathy Morgan, BSN, RN, CKC, NNP-BC

NAINR. 2014;14(1):28-33.

Risk Factor	Reference
Obesity in mother	Poets, Steinfeldt, & Poets (2011) ³¹
Primiparous, lack of education regarding proper technique and what infant should look like	Herlenius & Kuhn (2013) ³³ ; Thach (2014) ⁶⁷
Analgesia or sedative use in mother	Andres et al (2011) ³⁵
Post-natal fatigue in mother or infant, Mother falling asleep with infant	Poets, Steinfeldt, & Poets (2011) ³¹
Infant sleeping after feeding; infants do not struggle because they are asleep. Sleep reduces the arousal response to airway obstruction	Byard & Burnell (1995) ³⁹
Possible decrease in sympathetic nervous system activity in infant (decreased response to potential asphyxiating position)	Uvnas-Moberg, Arn, & Magnusson (2005) ⁵⁰ Poets, Urschitz, Steinfeldt, Poets (2012) ⁶⁵
Head totally covered	Blair, Mitchell, Heckstall-Smith, & Fleming (2008) ⁶⁶
Occluded position of mouth and nose/bent neck	Andres et al (2011) ³⁵
Side-lying breastfeeding position	Feldman & Whyte (2013) ⁵¹
Unsupervised breastfeeding	Andres et al (2011) ³⁵ ; Herlenius & Kuhn (2013) ³³ ; Becher, Bhushan, & Lyon (2012) ³⁴
Mother unobserved by nurse	Herlenius & Kuhn (2013) ³³
Prone position in SSC or up against breast	Herlenius & Kuhn (2013) ³³ Becher, Bhushan, & Lyon (2012) ³⁴
Maternal sedation by narcotics or magnesium sulfate	Goldsmith (2013) ³⁶
Maternal/parental distractions (I-phone, visitors, TV, etc.)	Pejovic & Herlenius (2013) ¹⁹
Bedsharing	Thach (2014) ⁶⁷

Safe Sleep and Skin-to-Skin Care in the Neonatal Period for Healthy Term Newborns

Lori Feldman-Winter, MD, MPH, FAAP, Jay P. Goldsmith, MD, FAAP,
COMMITTEE ON FETUS AND NEWBORN, TASK FORCE ON SUDDEN INFANT DEATH SYNDROME

- Componentes de posicionamiento seguro del RN durante el contacto piel – piel:
- Se puede ver la cara del RN
- Cabeza en posición de olfateo
- Nariz y boca libres
- Cabeza girada hacia un lado
- Cuello recto, no doblado
- Hombros y pecho del RN enfrentan hombros y pecho de la madre . Cabeza, cuello , columna alineados verticalmente con la madre
- Piernas flectadas
- Espalda cubierta con paño
- Binomio madre-RN es monitoreada continuamente por personal médico en sala de parto y regularmente en unidad de post-parto
- Cuando la madre quiere dormir el RN se deja en cuna o a cargo de otras persona de apoyo despierta y alerta

- Sugerencias para alojamiento conjunto:
- Información de seguridad enfocada en situaciones de riesgo
- Monitoreo de la madre de acuerdo a su evaluación de riesgo: por ejemplo cada 30 min durante la noche y horas de la madrugada en caso de mayor riesgo
- Usar herramienta de evaluación de riesgo de caídas
- Implementar test maternos para evaluar estabilidad
- Revisar y enseñar a usar el equipamiento: camas, barandas, timbres, etc
- Publicitar medidas sobre como evitar caídas
- Usr herramientas de evaluación de riesgo para evitar eventos asociados a cuidado piel – piel y a alojamiento conjunto

Safe Sleep and Skin-to-Skin Care in the Neonatal Period for Healthy Term Newborns

Safe Positioning for Skin-to-Skin Contact



Check list

- ☐ Face can be seen
- ☐ Head is in 'sniffing' position
- ☐ Nose and mouth are not covered
- ☐ Head is turned to one side
- ☐ Neck is straight, not bent
- ☐ Shoulders are flat against Mom
- ☐ Chest-to-chest with Mom
- ☐ Legs are flexed
- ☐ A little upright, not flat, on bed/chair
- ☐ Cover the back with blankets
- ☐ Both are watched when sleeping or
- ☐ baby is being monitored

If no one can watch you and your baby after feedings and when sleep is likely, put your baby on his or her back on the baby's own firm bed.



Medscape

Source: NAINR © 2014 Elsevier Science, Inc.

In-hospital Neonatal Falls: An Unintended Consequence of Efforts to Improve Breastfeeding

Colleen A. Hughes Driscoll, MD, Nicola Pereira, BA, Richard Lichenstein, MD

Pediatrics. 2019;143(1):e20182488

TABLE 1 Characteristics of Fall Events

	Time of Day	Newborn Feeding at Time of Fall	Pain Medication Given Within 4 Hours Before Fall	Notable Factors	Hours of Newborn Life
Case 1	5:30 AM	Yes	No	Length of stay >3 d	75.75
Case 2	2:52 AM	Yes	No	Mother <18 y, major depression	51.7
Case 3	12:05 AM	Yes	No	Major depression, toddler breastfeeding during admission, frequent visits from social work	38.05

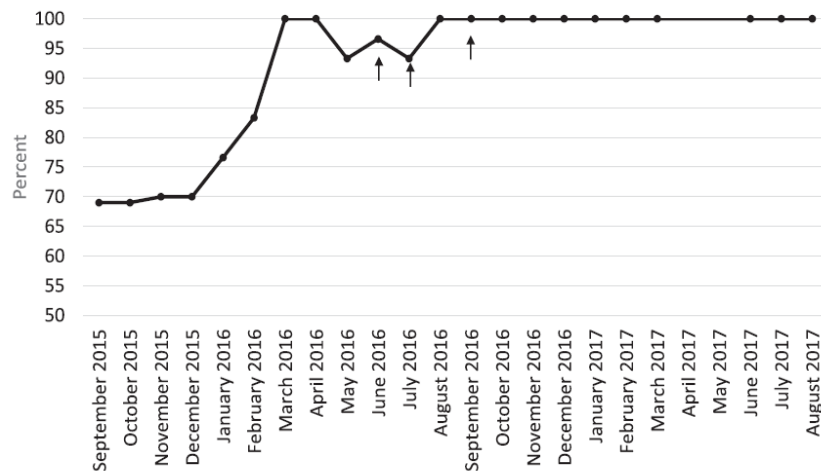


FIGURE 1
Percent of infants who ever breastfed. Arrows indicate fall events.

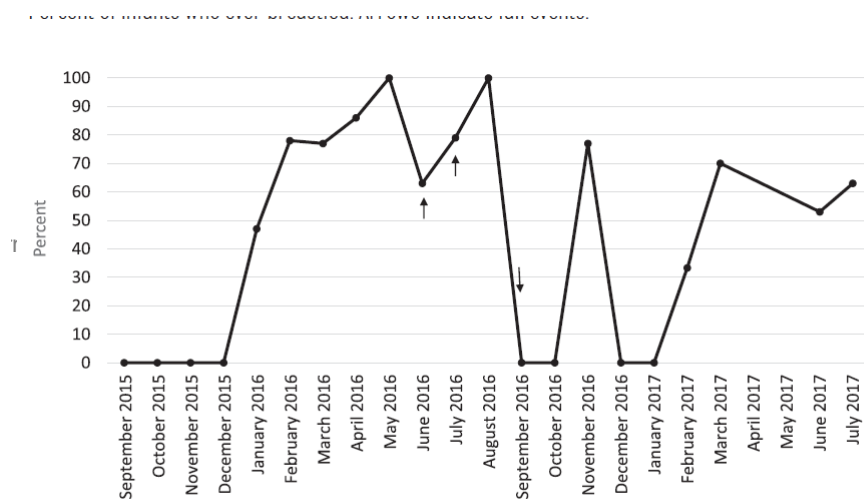


FIGURE 2
Percent of infants who roomed in. Arrows indicate fall events.

Caídas Neonatales:

- Frecuencia: 1.6-4.14 caídas /10,000 RN



- Factores de Riesgo:
 - Cesárea
 - Administración de medicamentos para el dolor en las 4 horas previas
 - 2da o 3era noche post-parto. Especialmente entre media noche y primeras horas de la mañana
 - Pecho

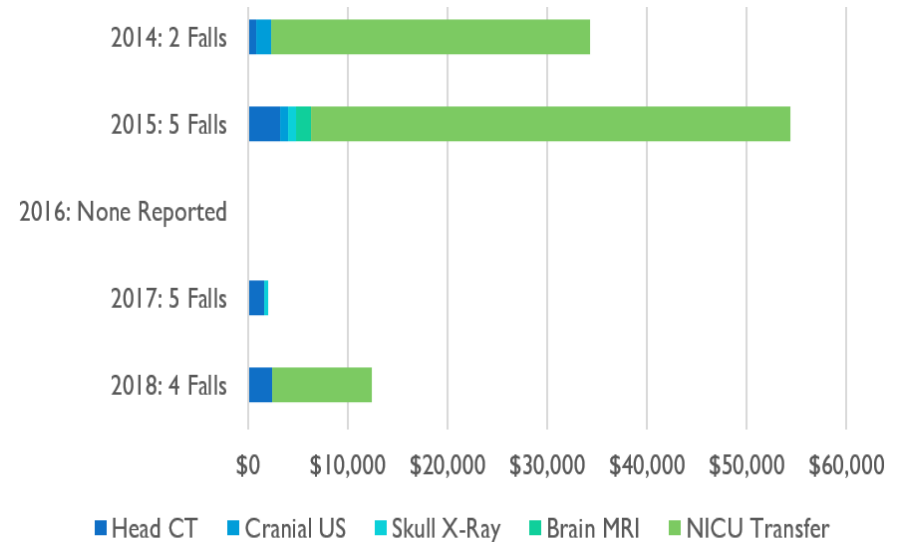
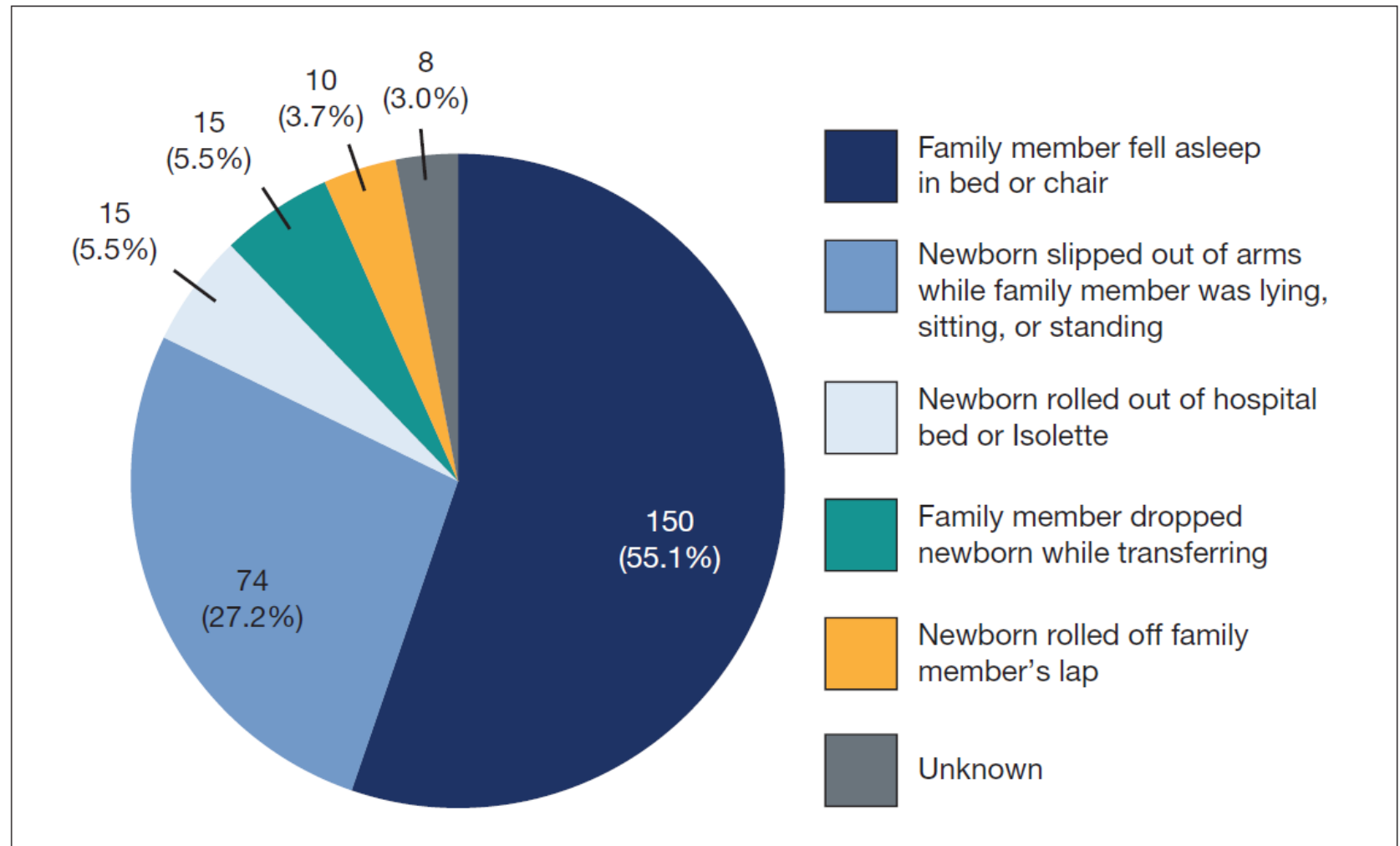
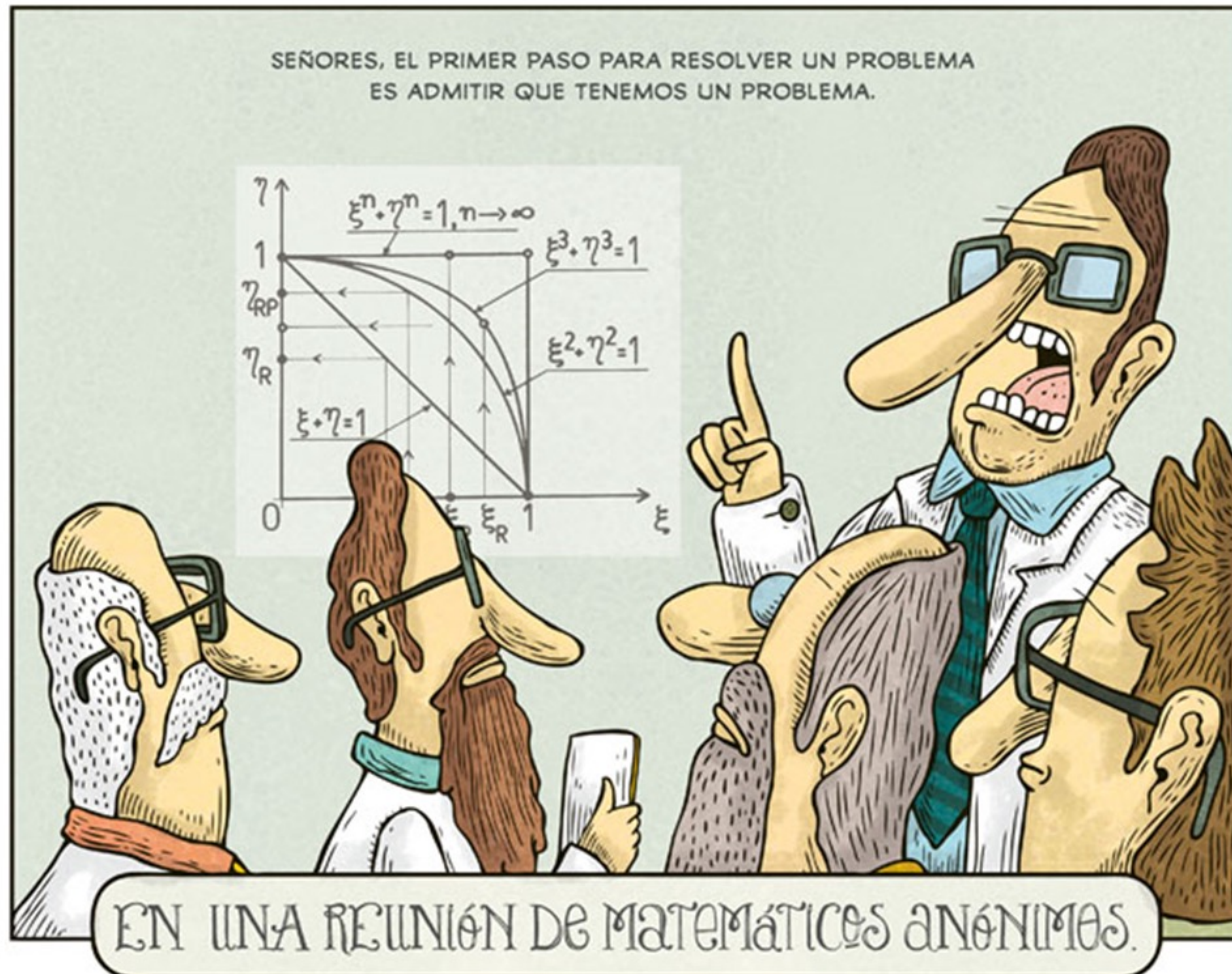


Figure 1. Newborn Falls Reported to PA-PSRS Between July 2004 and December 2013 (N = 272)



Reprinted with permission from Wallace SC. *Pennsylvania Patient Safety Advisory* 2014;11(3):102-8.

Apego (piel – piel) / Alojamiento Conjunto



GRACIAS

Some people talk in
their sleep. Lecturers
talk while other
people sleep.

Albert Camus

QuoteAddicts