

AWO Interregional Safety Committee Meeting

Houston, TX - 7/20 – 7/21/11

NORTHWESTERN UNIVERSITY STUDY

- This study addresses new data from scientific studies indicating the use of “anchor sleep” and “nap sleep” strategy

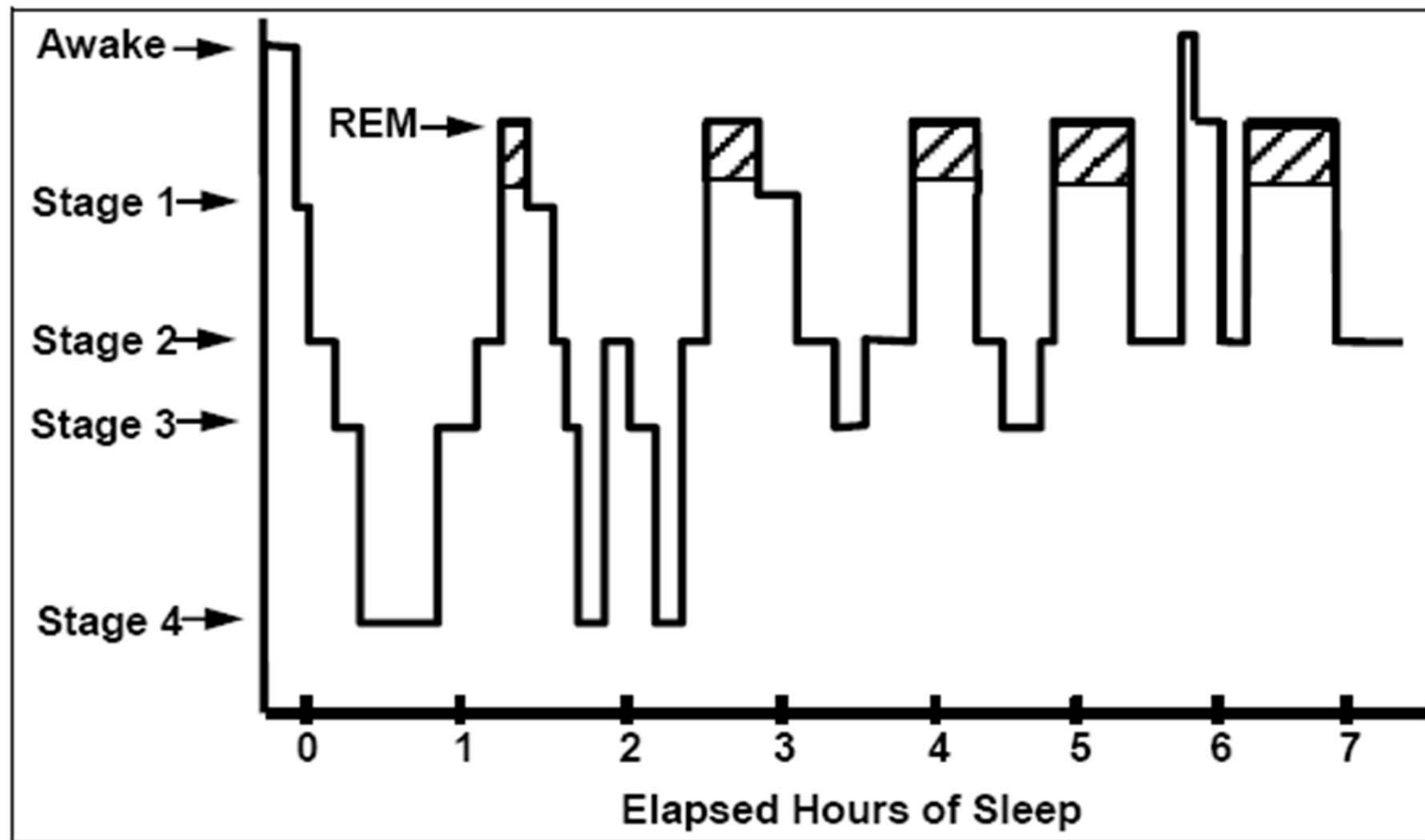
ANCHOR SLEEP

NAP SLEEP

**Anchor Sleep – Primary & longest
sleep period**

**Nap Sleep – Shorter sleep period
(time may vary)**

Sleep Architecture



NORTHWESTERN FINDINGS

Time in bed

8 hours or more

Sleep

6.5 – 6.6 hours

***(Note – This is during a 24 hour period
– not uninterrupted time frame.)***

- FRONT WATCH

- Average 6.4 hrs total sleep in 24 hr period
 - Average 8.1 hrs in bed in 24 hr period
- 3.7 of these hrs during peak sleep time (0000-0600)
 - Average 4.5 hrs in bed

- BACK WATCH

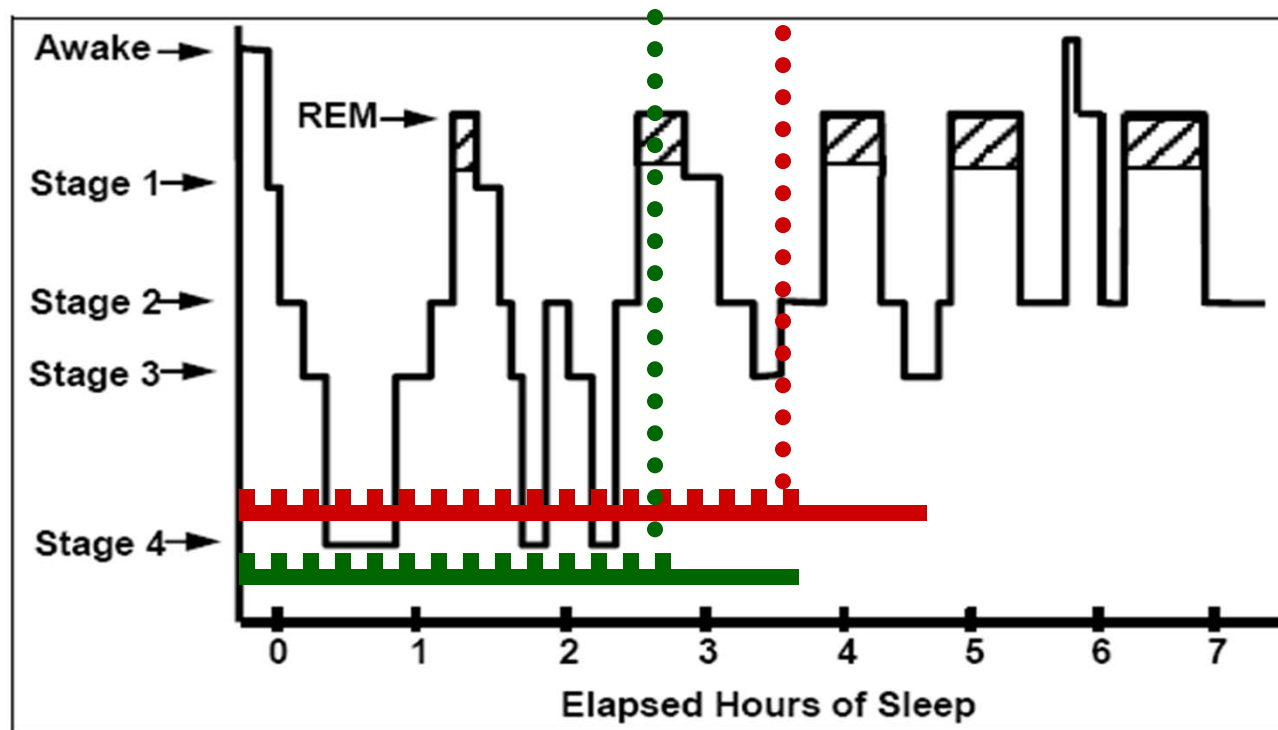
- Average 6.2 hrs total sleep in 24 hr period
 - Average 7.8 hrs in bed in 24 hr period
- 3.6 of these hrs during peak sleep time (0600-1200)
 - Average 4.4 hrs in bed

- Front Watch (Off Watch 0000 – 0600)

Sleep - 3.7 **Time in Bed - 4.5** ———

- Front Watch (Off Watch 1200 – 1800)

Sleep - 2.7 **Time in Bed - 3.6** ———

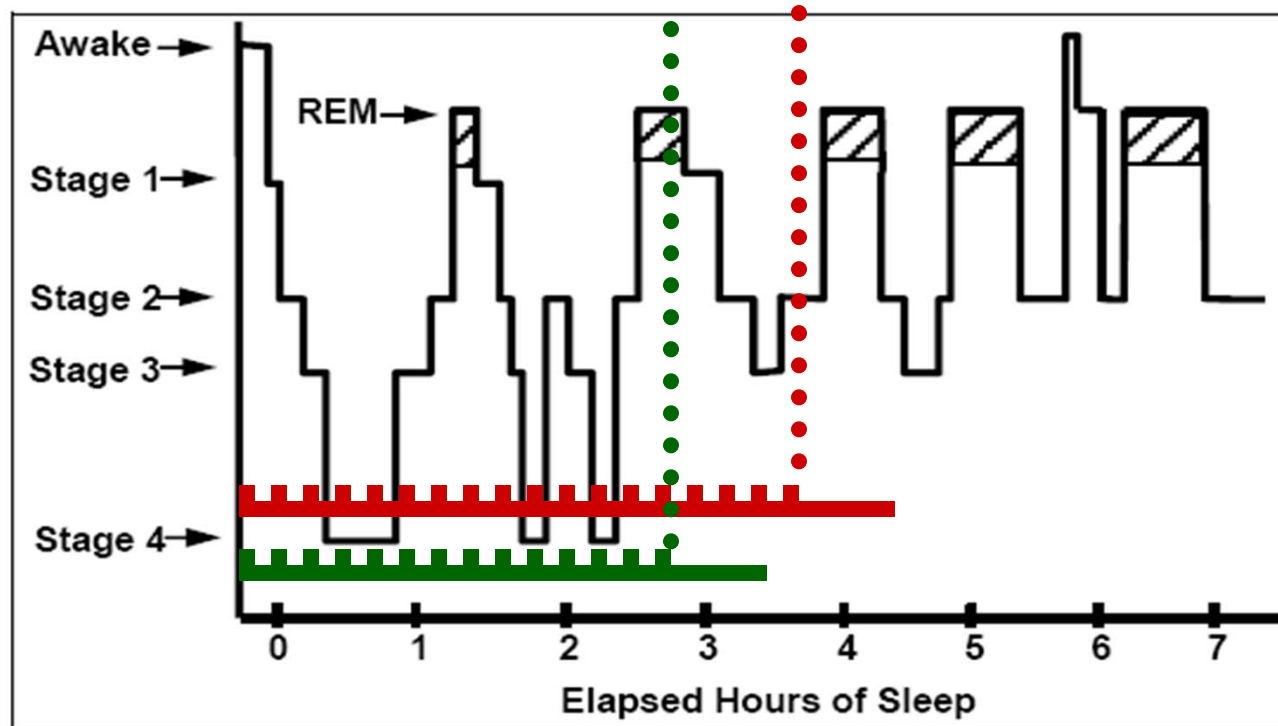


- Back Watch (Off Watch 0600 – 1200)

Sleep - 3.6 **Time in Bed - 4.4** ———

- Back Watch (Off Watch 1800 – 2400)

Sleep - 2.6 **Time in Bed - 3.4** ———



- Front Watch (Off Watch 0000 – 0600)

Sleep - 3.7

Time in Bed - 4.5

- Front Watch (Off Watch 1200 – 1800)

Sleep - 2.7

Time in Bed - 3.6

-
- Back Watch (Off Watch 0600 – 1200)

Sleep - 3.6

Time in Bed - 4.4

- Back Watch (Off Watch 1800 – 2400)

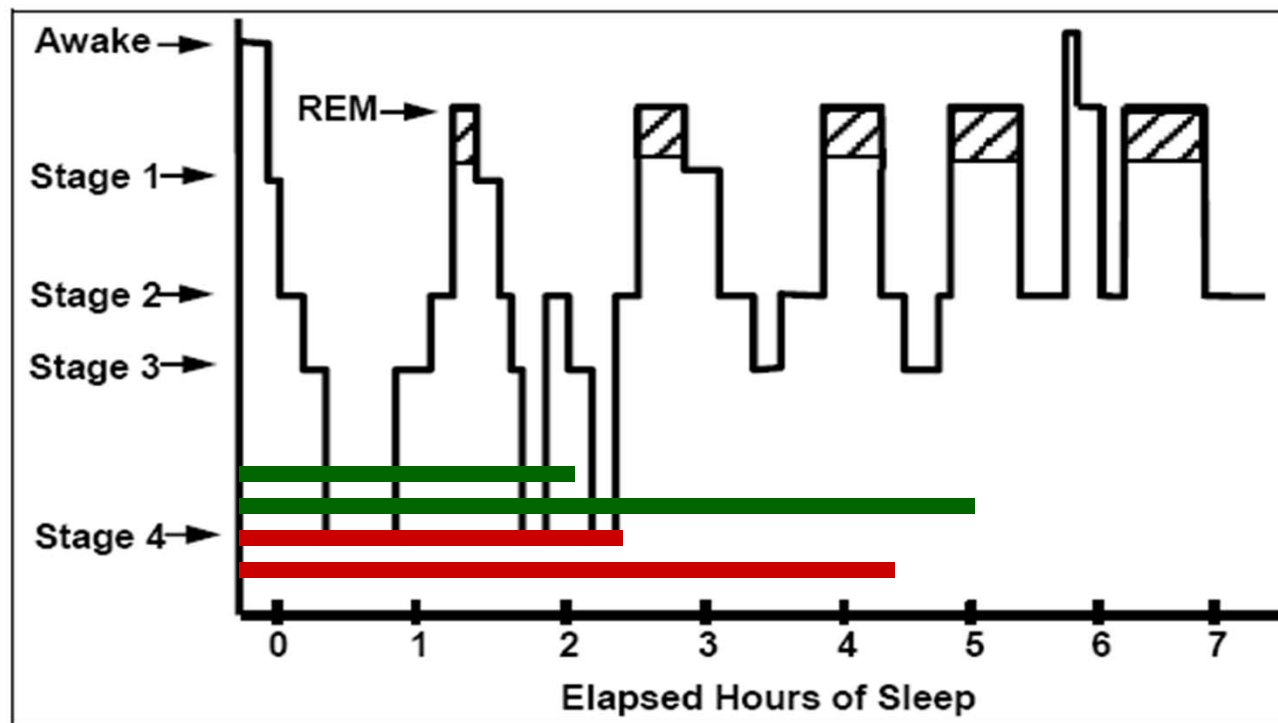
Sleep - 2.6

Time in Bed - 3.4

Additional Findings

- Very limited crew knowledge of CEMS
- Onboard educational intervention not increasing sleep time

- Would it help you to get 7 – 7.5 hours of sleep in a 24 hour period? (**4.5 + 2.5**) or (**5.0 + 2.0**)



Hmmmm...

- Why are crewmembers getting only 6.5 – 6.6 hours of sleep in a 24 hour period when they spend 8+ hours in bed?
- If you strived toward this extra 1 – 1.5 hours of sleep sometimes it would help!

SURVEY

SURVEY SAYS...

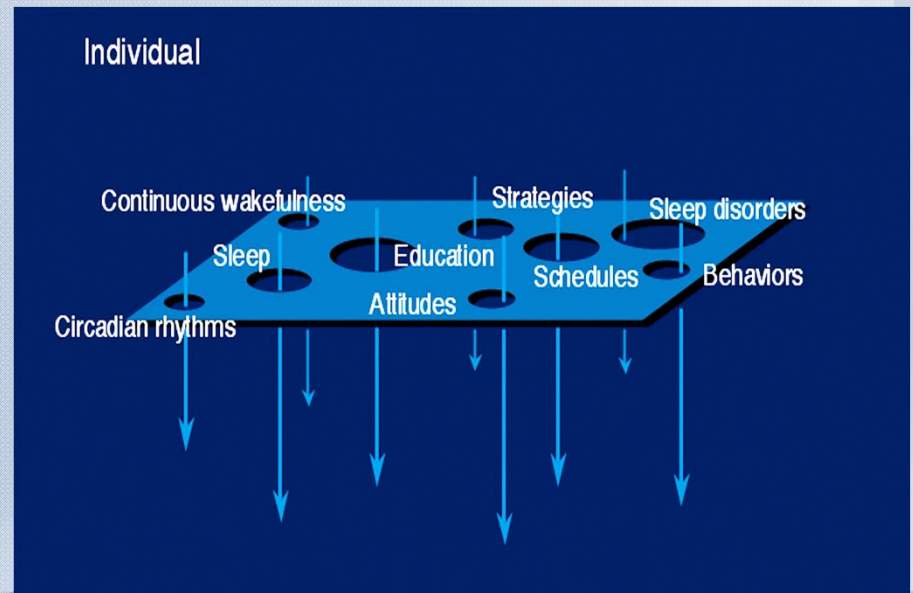
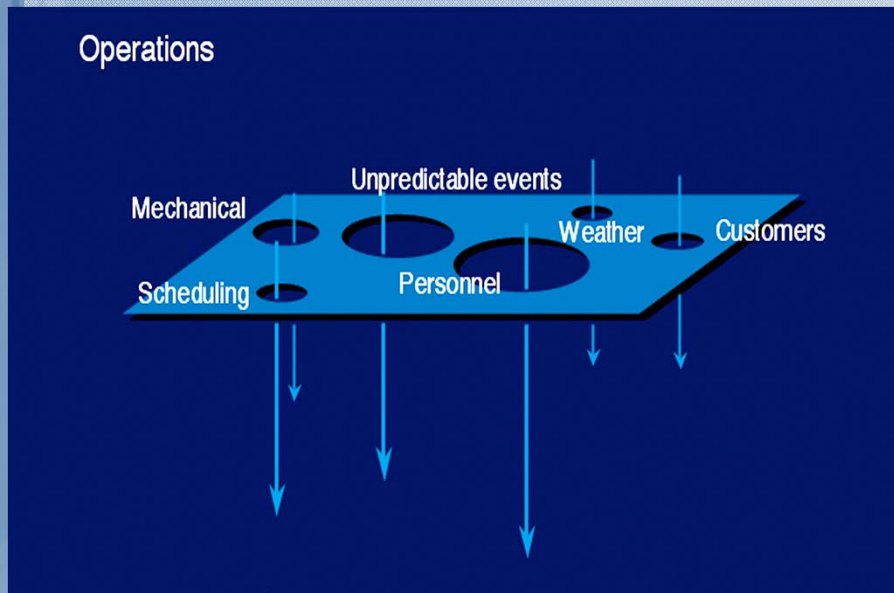
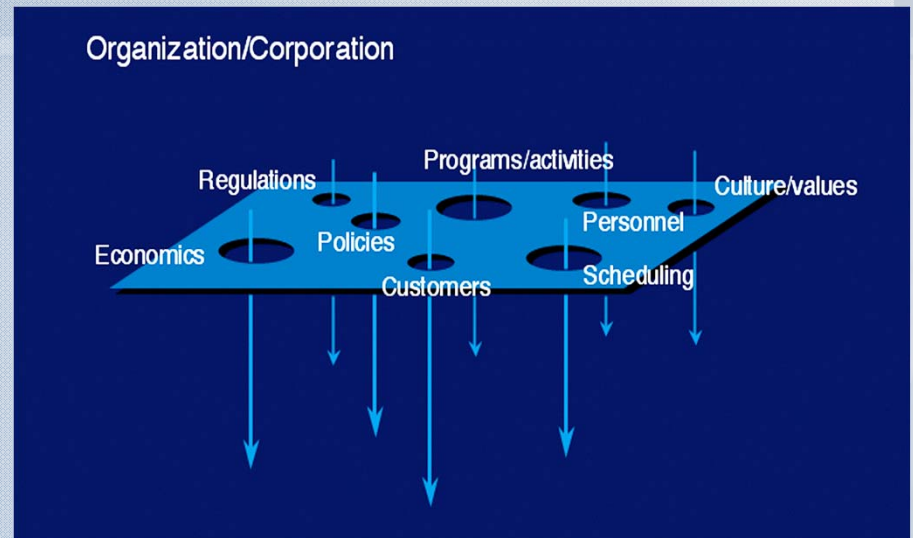
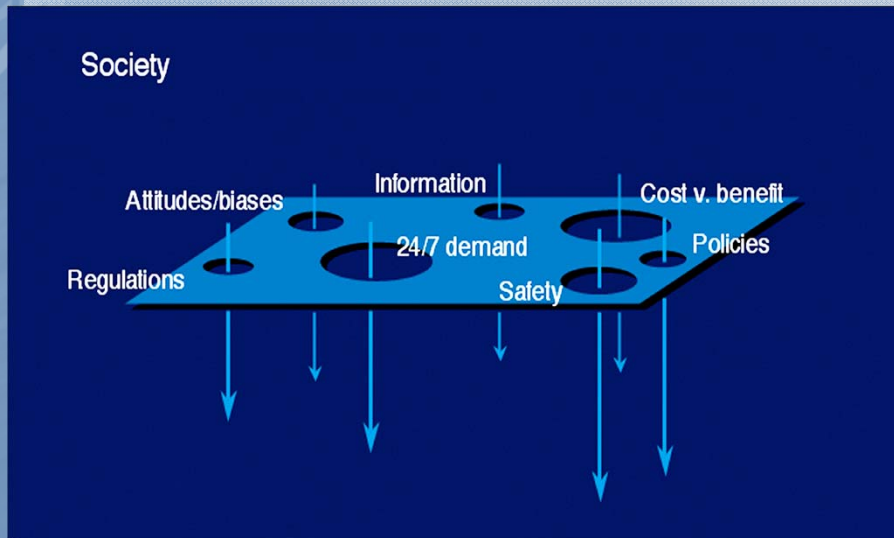
Discuss:

CHALLENGES

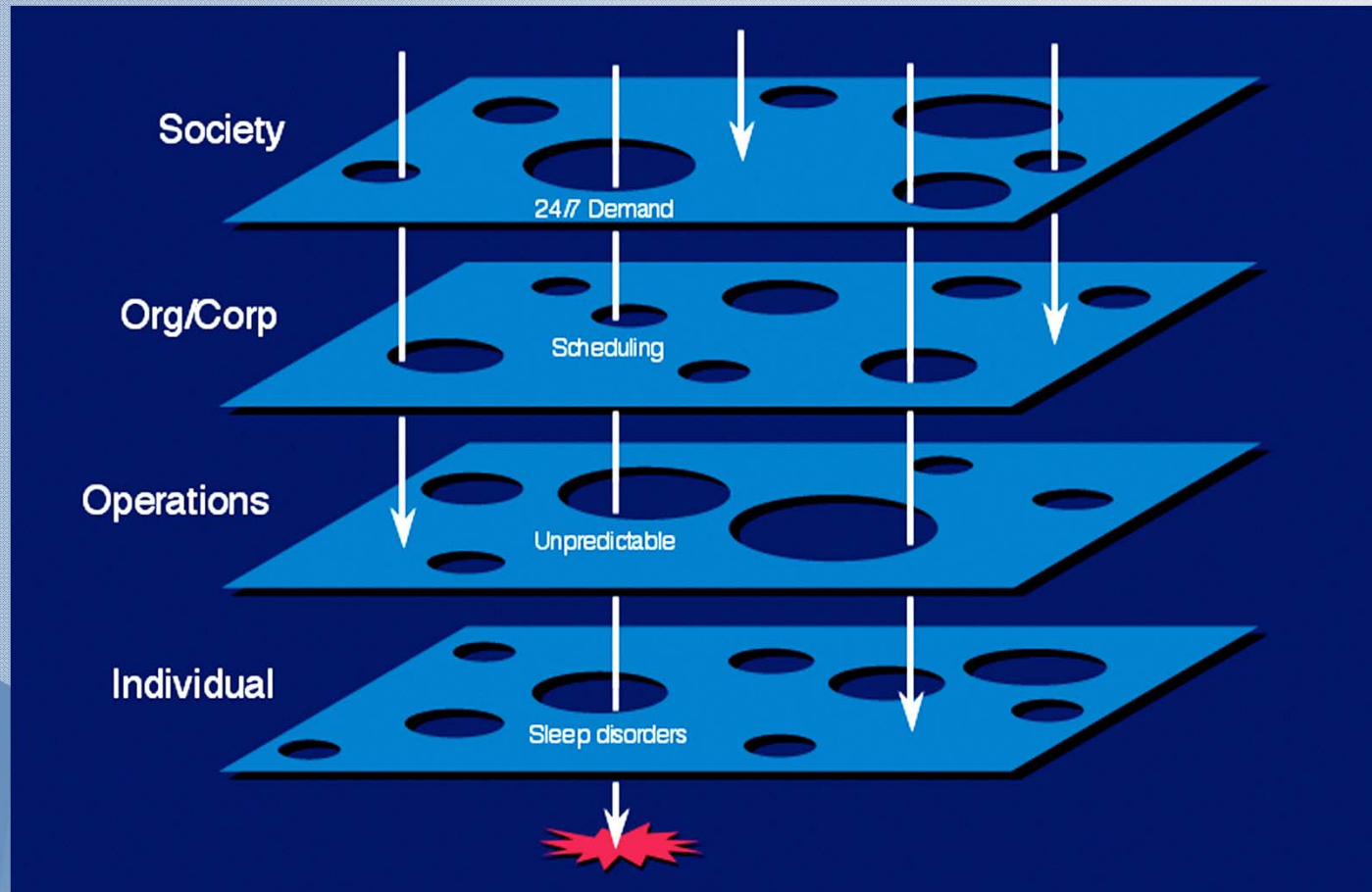
IDEAS

RECOMMENDATIONS

Risk Factors associated with Society, Organization/Corporation, Operations, Individual



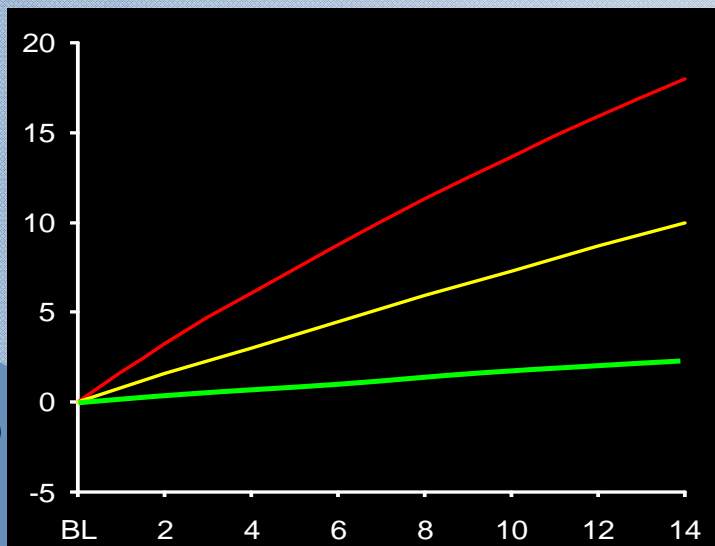
An accident or incident can occur when the risk factors “line up”.



they cannot reliably estimate their own level of fatigue

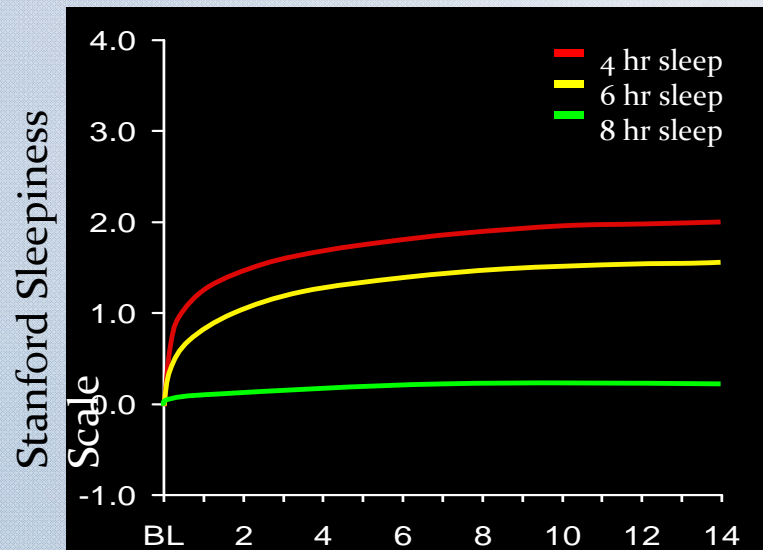
During sleep restriction, *objectively-measured* fatigue differs substantially from *perceived* fatigue

Actual Fatigue



Days of Sleep Restriction

Self-Rated Fatigue



Days of Sleep Restriction

A close-up photograph of a baby's face, focusing on the eye and nose. The baby has dark hair and is looking slightly to the right. The background is a solid light blue color. Overlaid on the left side of the image is a quote in a stylized, bubbly blue font with a white outline.

**“It ain’t gonna
change itself!”**

Thank you.

For more information contact:

Jo Ann Salyers

Salyers Solutions, LLC

504-236-4962

salyers_solutions@hughes.net

www.salyerssolutions.com