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Medical Director's Update for Base Station Physicians' Committee
March, 2011

Off-load delays were discussed at EMOC and we continue to development thinking about the response to off-load delays when they occur. If you have a substantial off-load delay of ≥30 minutes make sure the ED charge nurse knows of it. Our goal is to develop a response to off-load delays as they occur. We will keep you posted on the this important subject.

An unknown website was put up to gather off-load delays. The owner is unknown, but use of the website is problematic as it asks for HIPAA protected information.

Rapid Base contact: Sometimes patients arrive at receiving hospitals rapidly after notification. This is difficult for the ED when it is crowded, and may contribute to off-load delays in some cases. Please attempt contact and notification as soon as consistent with patient care.

Pulmonary Hypertension emergencies: Some pulmonary hypertension patients are receiving intravenous vasodilators that maintain critical vasodilatation and prevent abnormal blood vessel growth. Interruption of the vasodilator administration may cause sudden deterioration or even death. These medications include epoprostenol (Flolan, Veletri) and treprostinil (Remodulin). Patients have been instructed to call 911 for assistance in re-instituting the medication and transport to the hospital.

If an indwelling catheter is not functioning, an IV should be started and the infusion connected to the new IV. In some cases, the issue may be the pump or cassette and the patient should have a backup. You may have to work with the patient or family to re-connect the pump. While these agents are not in the scope of practice, you are simply providing the route of administration in emergency circumstances.

Some patients are on subcutaneous pumps, while others are taking oral medications, so you may see these patients as well.

STEMI Results: From the 2007 start until the 2nd quarter of 2010, 3,220 patients presented with STEMI, of whom 2,425 (75%) arrived by 911. Of these, there was prehospital activation in 1,890 (78%), and 1,412 (75% of PH activated) went to the cardiac catheterization laboratory. A percutaneous coronary intervention (PCI) was performed in 1,204 patients, or 85% of those taken to the cath lab.

The door-to-balloon times reflect the great performance of field personnel, along with hospital staff including the cath lab personnel, ED staff, and cardiologists. For activated cases in the second quarter of 2010 the mean door-to-balloon time was 60 minutes. This is superb. Interestingly, non-activated cases showed a mean of 72 minutes, and walk-ins 75 minutes, both a steady drop from previous door-to-balloon times. The entire process has speeded up. This will be reflected in lower death rates from STEMI.

The number of activated cases having a door-to-balloon time $\leq$90 minutes is 94%. A great performance.

In the second quarter of 2010 the number of false positives dropped from around 20% to 5%. This is such a large drop it may be isolated to this quarter, but the increasing move toward transmission of ECGs should keep this down in the future. The largest cause of false positive ECGs is mimics of STEMI such as atrial fibrillation, etc. The second largest is MD activation without definite STEMI recorded, with poor quality ECG and multiple ECGs also common causes of false positives.

Thanks again to all of you for making this possible for our patients. Great work.

Protocols: Are going through the review process. They will be reviewed again at BSPC, and hopefully we are near completion for this year. Changes are being considered for the allergic reaction protocol, for septic shock, and fluid administration among others. Remember to keep track of any suggestions for next year.

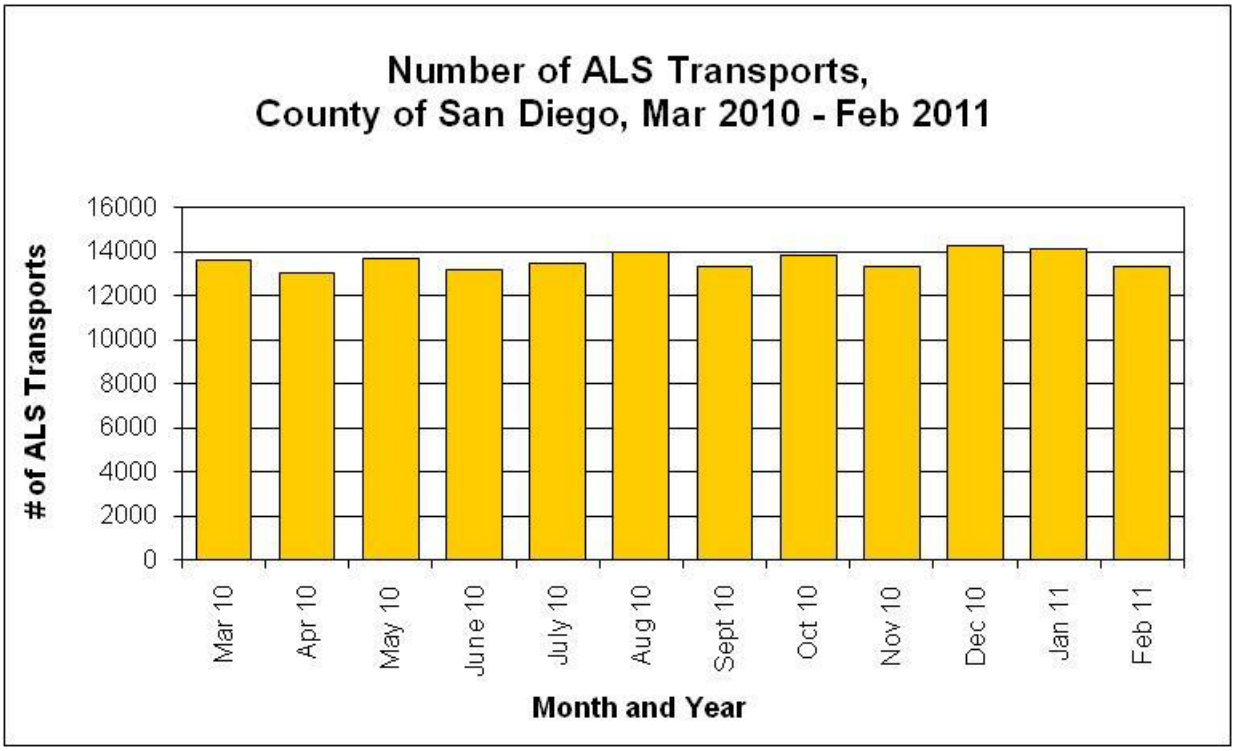
POLST: The new POLST form will be effective April 1, 2011. There are a number of changes that improve the readability and clarity. Old forms will continue to be valid. The POLST is valid even if not on the bright colored paper recommended. Photocopies are valid and may be faxed where needed. Hopefully we will see more use of this document.

The Advance Directive is a separate document that allows an individual to designate a decision maker for their health care decisions should they become incapacitated. The Advance Directive also allows the person to specify treatments they would either desire, or not desire.

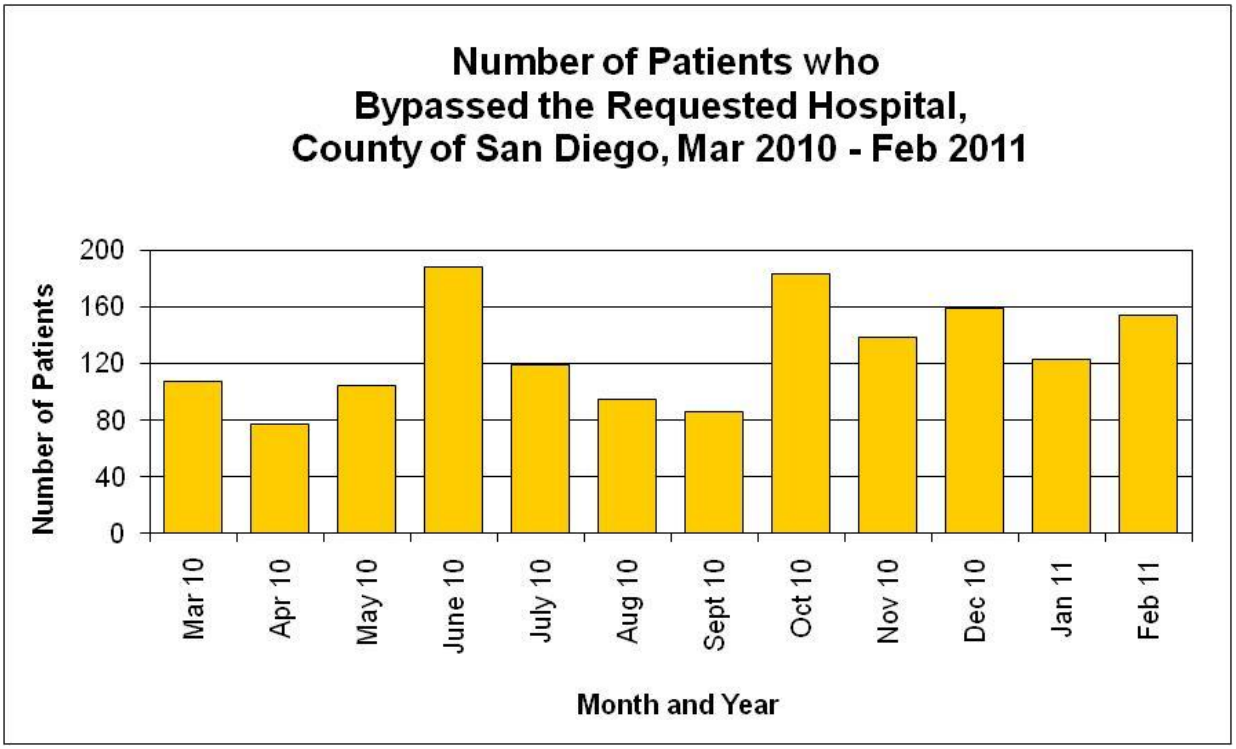
Influenza: The time is approaching the end of what we traditionally consider the "flu season." The number of cases seemed to peak several weeks ago, but cases seen in EDs rose last week. Next year's vaccine components have been selected so production may begin.

Health care facilities with mandatory universal vaccination have been shown to have lower death rates among patients. Influenza vaccine is most effective in younger, healthier individuals so the very young and elderly may not be protected even if vaccinated. That makes

it important that persons who come into contact with them be immunized. Influenza vaccination among healthcare workers reduces absenteeism.



Source: County of San Diego, Health and Human Services Agency, Emergency Medical Services, MICN Records, Mar 2010 –Feb 2011 Note: Numbers based on Run Outcomes of Transport by Unit and Transport by Other



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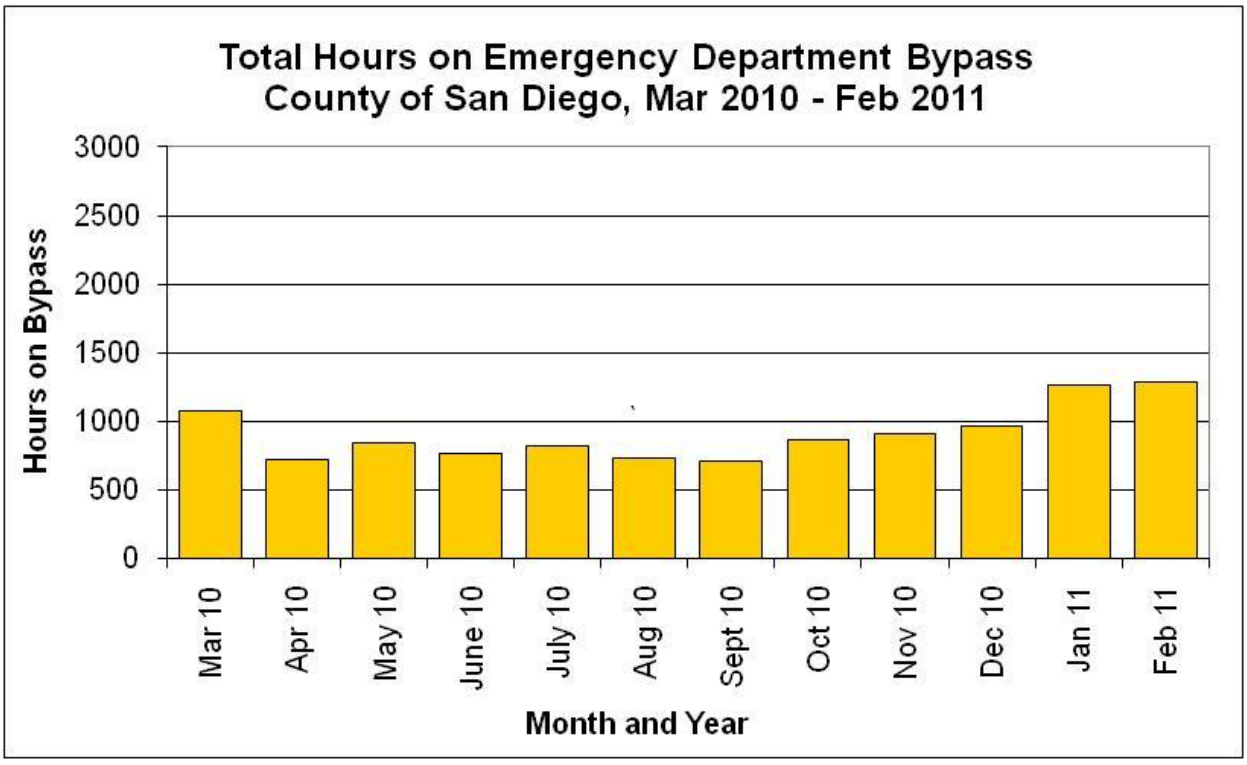

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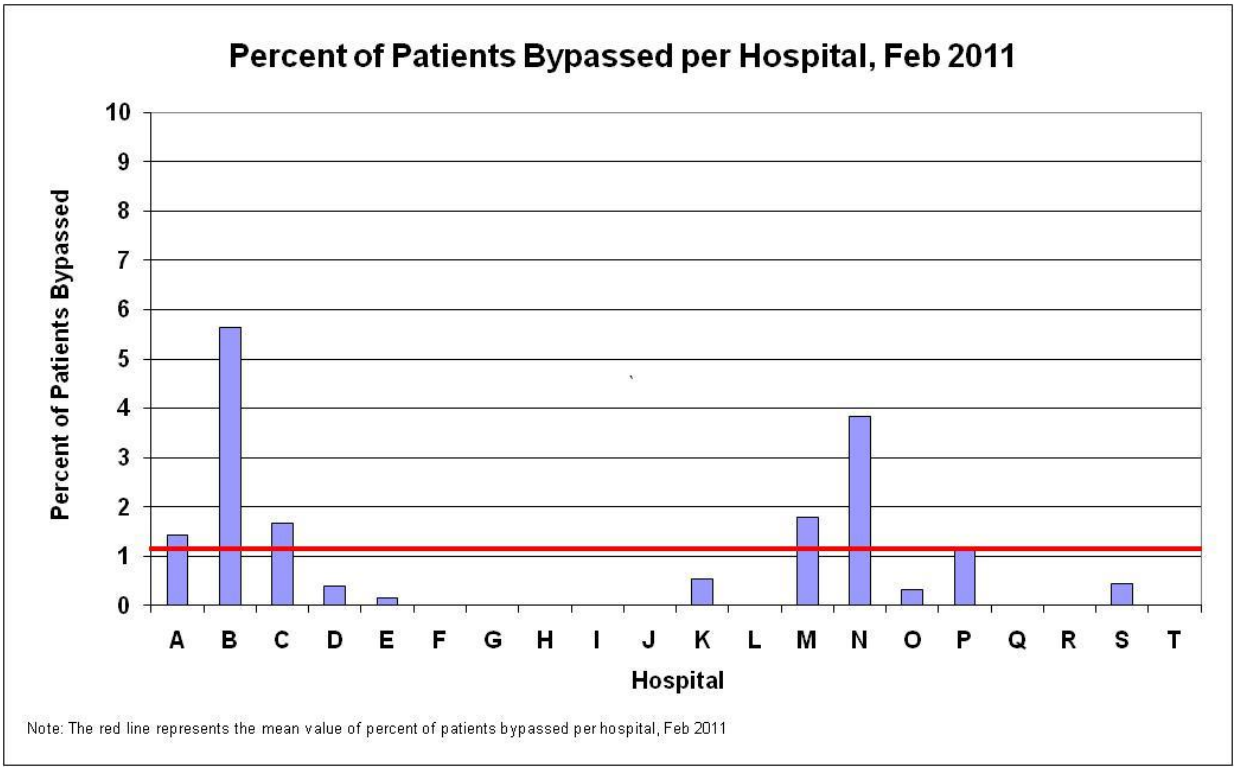

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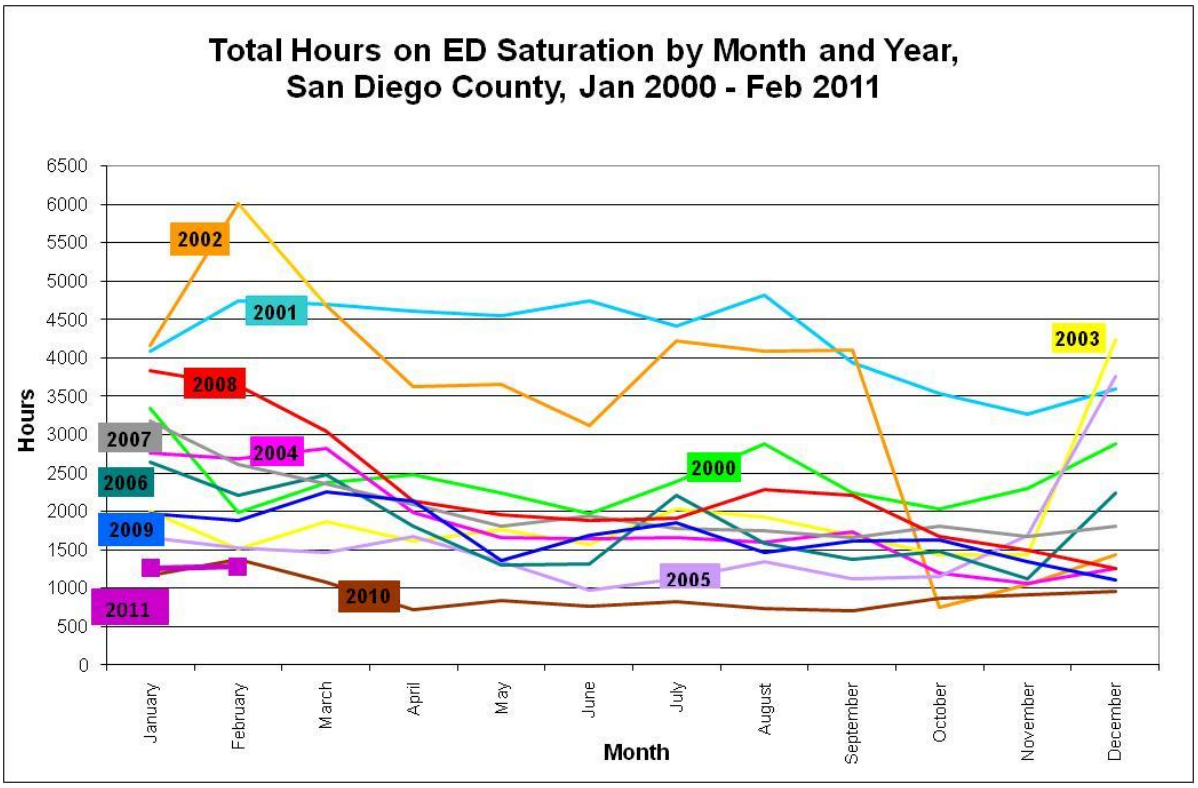
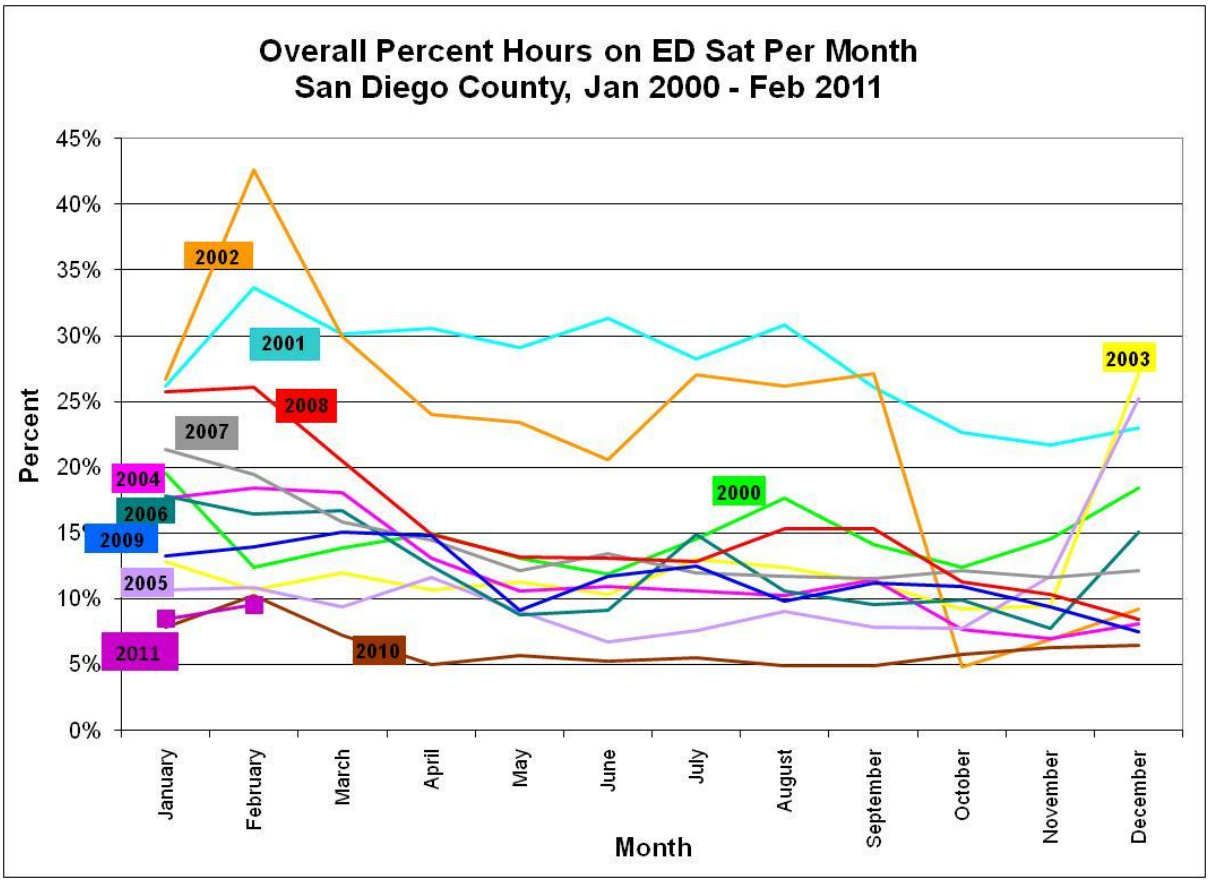


Source: County of San Diego, Health and Human Services Agency, Emergency Medical Services, MICN Records, Jan 2000 – Feb 2011



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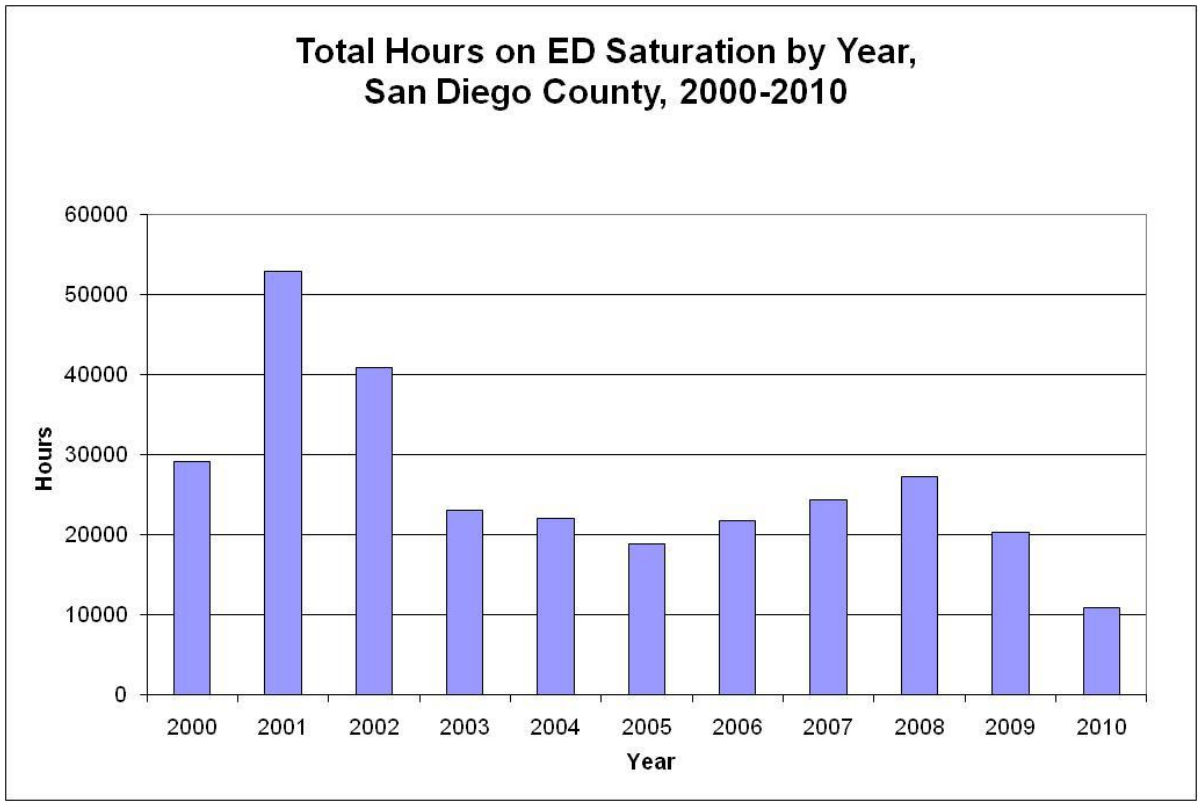
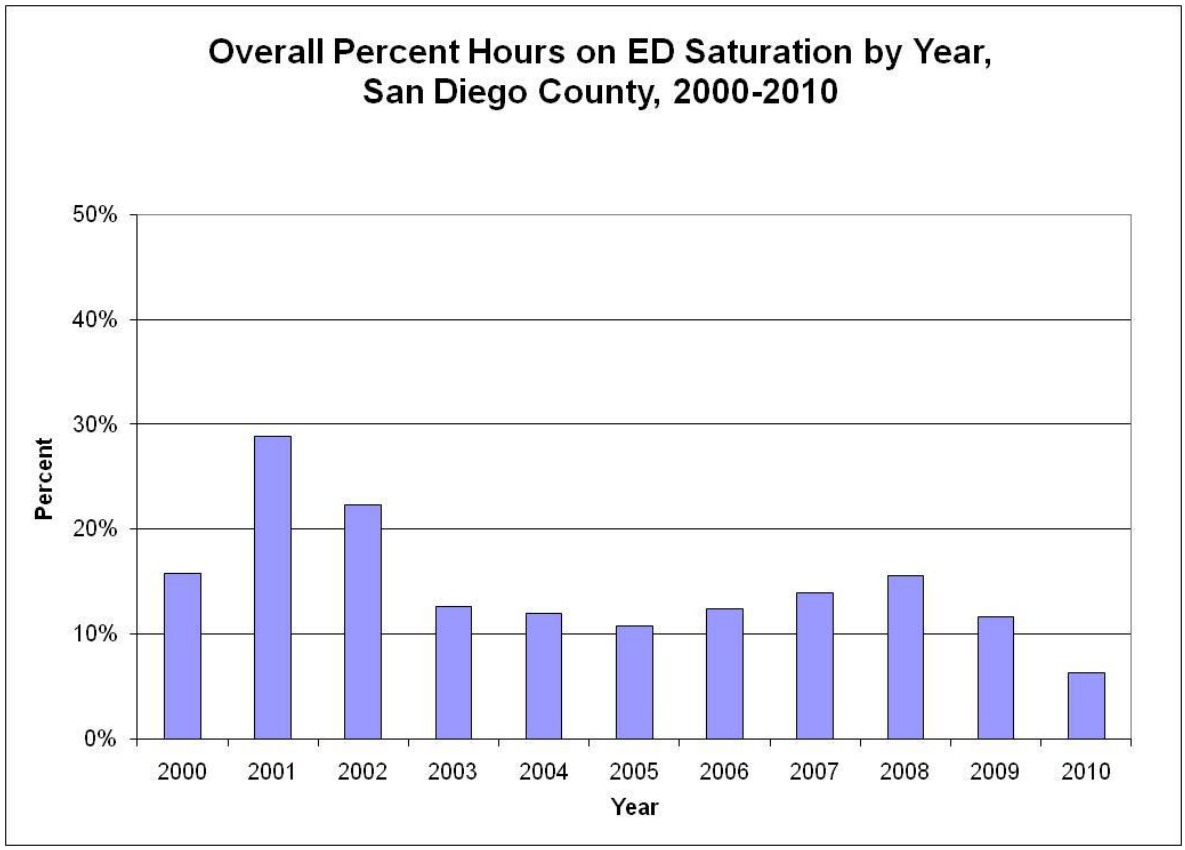


Source: County of San Diego, Health and Human Services Agency, Emergency Medical Services, MICN Records, 2000 – 2010



Source: County of San Diego, Health and Human Services Agency, Emergency Medical Services, MICN Records, 2000 – 2010