on what was felt to be implementable. Meeting with all share-
holders to educate to a goal, share data, and gain support required
100’s of hours of effort over many months.

RESULTS: The study period ran from 2010 through 2013 with
the initial intervention in 2012. We saw significant reductions in
the average Deep/OS SSI O/E ratio of 1.54 before the intervention
to 0.76 after the intervention. Maintaining the gains requires
continued re-education and data sharing.

CONCLUSIONS: A multi-modal intervention to reduced SSI rates
based on data and principles supplied at National Surgical Quality
Improvement Program conferences resulted in significant and sus-
tained improvement in our institutional SSI rates.

What is the return on investment for changing a medical
center culture?

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INTRODUCTION: Crew Resource Management (CRM) training is
a well-accepted cultural change methodology that has been used in
healthcare settings to improve team communication and reduce the
number of avoidable medical errors. Data is limited regarding the
actual return on investment (ROI) for implementing such training.
We hypothesize, that despite a seemingly high investment to com-
plete this training, a positive return on investment can be
measured, thereby supporting the benefit of such training.

METHODS: CRM was implemented at an academic medical
center starting in 2010 with instructors training approximately
1000 physicians, nurses and staff members each year. An anal-
ysis of the cost of implementation, including training, pro-
grammatic fixed cost, time away from work and leadership
time, was calculated and compared with the estimated savings
achieved through the reduction of avoidable adverse events be-
tween July 2010 and July 2012.

RESULTS: Between July 2010 and July 2013 3,000 health sys-
tem employees across 12 areas had been trained at an estimated
cost of $3,557,000. The total number of adverse events
avoided was 759 and savings ranged from a conservative es-
timate of $11,285,300 to as much as $24,634,140. Additionally,
reimbursement bonuses totaled $4,971,700 and included third
party payer incentives and Value Base Purchasing results.
Therefore the overall impact had a net return in the range of
$12,700,000 to $26,048,840.

CONCLUSIONS: The return on investment highlights the poten-
tial impact CRM can have on avoidable adverse events and patient
outcomes as well as the economic gains that can be realized. Ulti-
mately, considering the positive return on investment, culture
change is worthy of investment.

The use of the ambulatory procedure room for carpal
tunnel release

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INTRODUCTION: The Veteran population has a unique penchant
for requiring hand surgery because of their occupational use. This
leads to a high demand for hand procedures within the system.
These have traditionally been performed in the operating room
(OR) with sedation or general anesthesia, but can also be done at
the office under local anesthesia. This study investigated the differ-
ences between the two settings with respect to complications and
patient satisfaction.

METHODS: A database was compiled of the most recent carpal
tunnel surgeries performed at the R.L. Roudebush VA Medical
Center by the plastic, orthopedic, and neurosurgical services. The
minor room cases were matched to the main OR cases for each ser-
vice. Study variables collected were demographics, time to consult
and to surgery, operative time, and complications. Results were
then analyzed.

RESULTS: 46 minor room cases were identified. 50 cases in the
main OR for each service were also identified for 196 total patients.
These subsets were compared using a Spearman rank test for the
collected variables. A significant decrease was seen in room time
and times to initial consult and OR date without a difference in
infections or nerve injury.

CONCLUSIONS: Performing these procedures in the office have
been validated multiple times, however it is still not employed by
many practitioners. This study demonstrated a significant decrease
patient wait times with the use of an office based procedure room.
The transition to the office will also decrease system wide costs
through the reduced use of high cost resources such as general anes-
thesia and operating rooms.

Large-scale system-wide success with an ACCOUNTing
process to eliminate surgical sponge retention

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INTRODUCTION: Dignity Health (DH) is the fifth largest hospi-
tal system in the US. 9,600 physicians perform over 208,000 oper-
ations and deliver 65,000 babies per year. DH had more than 10
cases per year of retained surgical sponges (RSS) and had paid
malpractice claims in excess of a million dollars. To eliminate
the problem of RSS, the Sponge ACCOUNTing System was
implemented in all operating room (OR), birth and procedure
areas in 37 DH hospitals.

METHODS: Nurses use a standardized process to manage all
sponges. Surgeons perform a methodical wound exam in every
case and before the case ends a team based visual verification is