Consumers Union Statement of Support
to
Assembly Health Committee
Regarding Senate Bill 1058, By Senator Elaine Alquist
Relating to Hospital-acquired infections
June 17, 2008

Consumers Union, nonprofit publisher of *Consumer Reports*, strongly supports SB 1058, by Senator Alquist.

Five years ago, Consumers Union launched a national campaign, www.StopHospitalInfections.org, advocating for public disclosure of hospital-acquired infection rates to inform people about the safety of their hospitals and to mobilize hospitals to do more to prevent infections occurring in their facilities. We also advocate for screening incoming hospital patients for methicillin-resistant *Staphylococcus aureus* (MRSA) as a means to prevent its spread to other vulnerable hospital patients. SB 1058 addresses both of these issues.

Twenty-two states now have laws requiring reporting of hospital infection rates, an "outcome measure" that we believe is the best measure of the overall effectiveness of a hospital's infection control program. Also, three states (IL, PA, NJ) require hospitals to screen high risk patients for MRSA.

SB 1058 GIVES THE PUBLIC ESSENTIAL HOSPITAL SAFETY INFORMATION

Public Reporting: SB 1058 establishes a reasonable phase-in schedule for reporting hospital-acquired infections, giving hospitals sufficient time to prepare for the tasks required. In 2010, hospitals would start to report incidences of blood stream infections associated with a central line into the body that occur in intensive care units. This is the most common infection currently tracked by acute care hospitals. Under the legislation, the Department of Health would issue the first public report on blood stream infection rates in 2011. Also in 2011, hospitals would begin reporting certain surgical site infections. In 2012, ventilator associated pneumonia and urinary tract infections would be added. These four types of infections account for more than 80 percent of all hospital-acquired infections. [i]

Most states include central line associated blood stream infections in the ICU and surgical site infections in their initial public reports and allow for adding measures later. Both of these measures are also included in the CDC guidance for public reporting to state legislators and in measures endorsed by the National Quality Forum. Some states include ventilator associated pneumonia and urinary tract infections, which respectively represent the deadliest and most common hospital infections. Pennsylvania is the only state currently requiring reporting of all four of these types of infections occurring throughout the hospital.

The public understands that hospital infection rates provide a fundamental measure of a hospital's safety. A 2006 survey revealed that consumers would use hospital infection rates when choosing which hospital to go to and they are "ready to be empowered with information to ensure a positive outcome." According to the survey, 93% of consumers said infection rates would influence their decision-making and four in five said they would ask health care workers taking care of them to wash their hands.[ii]

SB 1058 ESTABLISHES PATIENT PROTECTIONS AGAINST SUPERBUG INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA). SB 1058 addresses the increasing problem of MRSA, an antibiotic-resistant superbug that can cause serious infections that are difficult to treat. In 1974, only two percent of staph infections in health care settings (among the most common causes of health care-acquired infections) were caused by MRSA, that is, staph infections resistant to methicillin, once one of the antibiotics of last resort. By 2004, MRSA infections made up nearly 63 percent of all staph infections in healthcare settings.iii

SB1058 requires hospitals to screen certain patients considered to be high risk for carrying MRSA into the hospital and thus presenting a risk to other patients. Eighty-five percent of serious MRSA infections occur in health care settings.[iv] MRSA is typically spread by touch, when doctors and health care workers carry it from patient to patient. This happens when proper precautions are not taken. That's where screening can help. Once the hospital identifies patients carrying MRSA, doctors and health care workers can take extra precautions with those patients. These precautions typically include isolating the patient, strict hand hygiene, and use of gloves, gowns and sometimes masks when providing care for the patient. These are proven strategies for reducing the incidence of MRSA infections throughout the facility, yet most hospitals are using them only after a patient is diagnosed with a full-blown infection, totally missing the risk of transmission posed by patients who are colonized with MRSA. [v] (See below for more details about MRSA)

Additionally, SB 1058 requires hospital labs to report non-duplicated positive cultures confirming MRSA, vancomycin-resistant enterococci, and clostridium difficile infections to the Department of Public Health. The purpose of this is for the Department and the state to understand the prevalence of these particularly dangerous infections caused by antibiotic resistant organisms. All three of these superbugs create serious problems in California and national hospitals if not kept in check. The hospital specific data that is described in the section on "Public Reporting" above will be used to calculate the rate of infections over a year's time and will be at least one year old by the time it is presented to the public. In contrast, the incidences of antibiotic resistant infections to be reported under this section will give the Department vital information about trends as they are occuring. This will enable the Department, policymakers and the public to see when infections are increasing in certain locations around the state. This can help the state focus its efforts to prevent MRSA and other infections resistant to treatment.

SB 1058 OTHER PROVISIONS TO IMPROVE HOSPITAL SAFETY

Infection Control Professionals (ICP). Effective infection control programs in hospitals depend upon sufficient qualified staff to develop and implement a facility-wide

program. The 1985 Study on the Efficacy of Nosocomial Infection Control (SENIC) project suggested that an effective program required one ICP per 250 occupied beds. However, in recent years professionals no longer believe these ratios are sufficient in our complex health care system.[vi]

We support the provision in SB 1058 which requires California hospitals to have at a minimum one qualified ICP for every 100 beds in the hospital.

Information to patients. The bill requires hospitals to provide vital information to patients who have been identified as carriers of MRSA and those who have infections from MRSA. The information includes advising them how to prevent spreading the bacteria to others at the time of discharge.

Requirments for hospitals to be disinfected. SB 1058 also establishes new requirements for hospitals to maintain a sanitary and disinfected environment.

THE COST OF HOSPITAL-ACQUIRED INFECTIONS

The cost of hospital-acquired infections can be assessed at numerous levels. The **human cost** is by far the greatest: each year two million patients get an infection while being treated in our nation's hospitals, and almost 100,000 of them die.[vii]

Cost to the health care system: John Jernigan, Chief of Interventions and Evaluations at the Centers for Disease Control and Prevention (CDC), estimates the hospital costs for these infections to be as high as $27.5 billion each year. The cost of an infection depends on the type and how long it takes for a patient to recover, and it is difficult to pin down the actual costs because most estimates are based on "charges." Generally, the cost-charge ratio is estimated at 0.5 (so cost is about half of the charges); of course, this ratio can vary by hospital.[viii]

Most estimates only look at hospital costs, but the cost for each patient goes far beyond hospital care to include medications, home health care, doctors' services, physical therapy, wound care, etc.

The best public estimates we have to date are from Pennsylvania which reports rates on all four of the major types of infections (surgical site infections, blood-stream infections, ventilator associated pneumonia, and urinary tract infections) and reports on infections occurring throughout the hospital. The state also collected information directly from private insurers to get a more accurate picture of the actual costs to the health care system.[ix] The private insurance payments ranged from $27,000 for urinary tract infections to $80,000 for blood stream infections.[x] In 2005, Pennsylvania estimated the total charges for the state's infections at $1.4 billion.

Governor Schwarzenegger's office estimates the cost of hospital-acquired infections in California to be $3 billion. And, a Massachusetts Panel estimated the total cost of hospital-acquired infections in that state to be $200 million to $473 million.

Cost to State Government. The cost of hospital-acquired infections to state funded health care programs is substantial and must be considered when looking at the investment needed for a public reporting system. The increased public and hospital awareness that comes with such a system will reduce infections and has the potential for saving significant state dollars.

A 2007 study by the Association of Professionals in Infection Control and Epidemiology (APIC), found that Medicaid was the payer for 11.4% of hospital-acquired infection cases. A 2005 Pennsylvania report analyzing who was paying for hospital-acquired infections in that state found that Medicaid paid for 9% of all hospital-acquired infections, accounting for 18% of the hospital charges for that state's infected patients. Pennsylvania estimated that the average charges for Medicaid patients with an infection were more than $391,000, while the average charges for Medicaid patients without an infection were just under $30,000. Oregon estimated that the excess Medicaid costs for hospital-acquired infections in that state exceeded $2.4 million in 2005.

MORE INFORMATION ABOUT MRSA

In June 2007, the Association for Professionals in Infection Control and Epidemiology (APIC) released the first-ever nationwide analysis on the prevalence of MRSA in U.S. healthcare facilities based on data collected from more than 1,200 hospitals in all 50 states. The APIC report found that MRSA hospital-acquired infections are 8.6 times more prevalent than previous estimates and those MRSA infections are found in all wards throughout most hospitals. This is significant as APIC found that less than half (45 percent) of hospitals are tracking infections throughout the hospital – the rest are focusing only on intensive care, surgical, or high risk nursery patients.[xi]

An estimated 95,000 people developed MRSA infections in 2005, according to CDC researchers.[xii] Hospitalizations due to MRSA infections have doubled in recent years. Between 1999 and 2005, the number of patients hospitalized with MRSA infections went from 127,000 to almost 280,000.[xiii]

While MRSA once affected primarily the sick and elderly in hospitals, according to many published reports it has now spread outside of these facilities. The bugs, typically different strains than the types found in hospitals, are striking young, healthy people through contact with infected skin mainly by sharing towels or other personal items. However, the community strain is now being spread in hospitals when patients unknowingly carry it in.

Though reports of community-acquired MRSA infections are increasing, recent CDC sponsored research shows that 85 percent of such infections are picked up in the hospital or some other health care setting.[xiv]

Patients who develop MRSA infections end up staying longer in the hospital, have higher medical care bills, and are more likely to die from their infection. A study by the Pennsylvania Health Care Cost Containment Council found that hospital patients with MRSA infections are four times as likely to die, will stay in the hospital two and a half times as long, and are charged three times as much compared to patients without MRSA.[xv]

As MRSA infection rates have climbed, more and more attention has focused on preventing the spread of these superbugs. In addition to strict hand hygiene, successful strategies for controlling MRSA include screening patients using active surveillance cultures, isolating patients colonized with MRSA, using gowns, gloves, and masks when treating them, and routine decontamination of patient rooms and operating rooms.[xvi]

Many hospitals in northern Europe have used these strategies to successfully control MRSA infections for decades. MRSA made up 33 percent of all staph infections in Denmark in the 1960s, but has declined steadily after aggressive control practices were instituted and has hovered around 1 percent for the past 25 years.[xvii] Likewise, the

prevalence of MRSA has been kept under .5 percent in both Finland and the Netherlands.[xviii]

APIC found that only 29 percent of infection control professionals it surveyed for its 2007 MRSA prevalence study reported that their hospitals used active surveillance cultures to identify patients who are colonized with MRSA. Fifty percent of the infection control professionals surveyed said their hospital "was not doing as much as it could or should to stop the transmission of MRSA."[xix]

A number of hospitals in the U.S. following this "bundle" of MRSA infection control strategies have documented impressive results. A pilot program at the Veterans Health Administration's (VHA) Pittsburgh Healthcare System in Pennsylvania in 2001 has reduced infections in the hospital's surgical unit by 70 percent.[xx]

All patients admitted to the hospital underwent a nasal swab upon admission to screen for MRSA. Patients who tested positive were isolated from other patients and were treated by health care workers who wore disposable gowns, masks, and gloves. Medical equipment – like stethoscopes and blood pressure cuffs – was disinfected after each use. Patients received another nasal swab right before discharge to see if they developed a MRSA infection during treatment.[xxi]

This pilot was so successful that the VHA issued a directive in January 2007 "to interrupt the chain of transmission of MRSA" by requiring all of its 150 hospitals to follow this MRSA protocol. Initially, the directive required screening patients in intensive care units, then in other high risk units such as transplant units and general surgical wards, and continuing to phase in other units of the hospitals "until all inpatient areas (with the exception of inpatient psychiatry) are incorporated in the initiative."[xxii]

The University of Pittsburgh Medical Center has reduced MRSA in its intensive care units by 90 percent using this approach[xxiii] and significant results have been documented at the University of Virginia Health System[xxiv] and Evanston Northwestern Healthcare in Illinois.[xxv]

The effectiveness of MRSA screening efforts at three hospitals in the Evanston Northwestern Healthcare system were documented in a study published on March 18, 2008 in *Annals of Internal Medicine*. Researchers studied MRSA interventions and found that universal screening of all patients upon admission resulted in an over 50 percent reduction in hospital-acquired MRSA infections.[xxvi]

Another study published recently in the *Journal of the American Medical Association* concluded that MRSA screening of surgical patients was not effective for preventing surgical infections. However, this study did not measure the impact on the spread of infections throughout the hospital, rather it only measured infections among the surgical patients screened. The study revealed that the results of 31 percent of the patients' tests were not received prior to their surgery, thus negating the benefit of screening. Further, the study actually found those patients who were pre-screened and who got results prior to surgery, were able to receive the appropriate preventive antibiotics for MRSA and to "decolonize" prior to surgery. In this group, no infections occurred.[xxvii]

Critics argue that this bundled approach for controlling MRSA is too expensive. But numerous studies have shown that screening and isolating patients who test positive for MRSA ends up saving money by preventing infections that would result in even higher costs for patients and hospitals.[xxviii] For example, the infection control program at Evanston Northwestern saves the hospital $25,000 in uncovered medical costs per patient every time a MRSA infection is prevented.[xxix]

Similarly, a recent analysis found that hospitals nationwide would save over $231 million annually if all elective surgery patients were screened for MRSA upon admission and proper precautions were taken with those found colonized with MRSA.[xxx]

HOSPITAL-ACQUIRED INFECTION REPORTING IN OTHER STATES

Twenty-two state laws require reporting of the rate of various types of infections: CO, CT, DE, FL, IL, MD, MN, MO, NH, NY, NJ , OH, OK, OR, PA, SC, TN, TX, VA, VT, WA, and WVA. Other states do not report rates but have various other requirements: CA & RI report information about the processes hospitals use to prevent infections; AR reporting is voluntary with aggregated public reports (not hospital-specific); NV, NE hospitals send confidential reports to a state agency. So far five states have issued reports (FL, PA, MO, SC, VT) which can be viewed at http://www.consumersunion.org/campaigns/stophospitalinfections/learn.html.

A number of the states have decided to use the CDC National Healthcare Safety Network (NHSN) as the data collector (CO, CT, NJ, NY, OR, PA, SC, TN, VA, VT, WA). While NHSN is a voluntary, confidential reporting system, the laws in these states establish the requirement to report infection rates. The hospitals send data to NHSN and then provide the information to the state agency responsible for the public reports. NHSN has been developed with these emerging state laws in mind and facilitate the sharing of data. This is an update of a system in place at CDC for more than 30 years. The prior system had limited capacity (315 hospitals) while NHSN states that it will be able to handle every hospital in the country.

Senate Bill 1058 will significantly improve the safety of California hospitals. We urge you to support its passage. Please contact me if you have any questions.

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