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1. MATERNAL CHILD HEALTH / CHILD HEALTH CARE


This article traces the influence of early misfortune on somatic and psychological symptoms, examining whether the health disadvantages endure and/or worsen over a decade. Method: The study uses two waves of data from the Midlife Development in the United States study. Structural equation models are used to assess change in somatic and psychological symptoms. Results: Findings reveal that childhood abuse is associated with more initial somatic and psychological symptoms among American adults, but that family structure and financial strain had little association with baseline adult symptoms. The effects of abuse were not observed at Wave 2 (W2), net of Wave 1 (W1) symptoms. Discussion: The results suggest an enduring—but not cascadic—effect of childhood abuse on adult health. There was little evidence that the consequences of early misfortune waned over the course of time or were less substantial for older adults; but neither did these early life experiences contribute to worsened symptoms over a decade of observation.

Keywords: Life course epidemiology, childhood adversity, physical health, mental health


This paper presents a new method for estimating the effect of child mortality on the total fertility rate (TFR). The method is based on discrete-time survival models of parity progression that allow construction of a multivariate multidimensional life table of fertility with four dimensions: woman’s age, parity, duration in parity, and number of previous child deaths. Additional socio-economic variables are included in the set of predictor variables in the underlying survival models of parity progression. The life table yields a replacement rate, which measures the effect of one additional child death on the TFR. The method is illustrated by applying it to three Indian National Family Health Surveys. Major findings are that dead children are incompletely replaced, and that the replacement rate rises as the TFR falls, reflecting women’s increasing ability to control their fertility.

Keywords: fertility; TFR; child mortality; multidimensional life table; survival models; replacement rate; India

This study estimates the prevalence of disability among late middle-aged women and identifies important correlates of disability among this population. Disability was assessed among 376 participants of the Michigan Study of Women's Health Across the Nation cohort at the 2011 follow-up using the World Health Organization Disability Assessment Schedule. Demographic and health measures were related to disability status using logistic regression models (none or mild vs. moderate, severe, or extreme disability). Nearly 25% of women reported moderate to extreme global disability. African American race/ethnicity, economic strain, peripheral neuropathy, and depressive symptomatology were associated with global disability. Obesity, knee osteoarthritis, and hypertension were only associated with disability for the mobility domain (getting around). The prevalence of disability is relatively high among this population of late middle-aged women. Efforts to prevent or forestall disability should be extended to include middle-aged populations as they may be most amenable to intervention.

Key Words: Disability, Aging, Population-Aged


Aggression affects academic learning and emotional development, can damage school climate and if not controlled early and may precipitate extreme violence in the future. **Objective s**: (1) To determine the magnitude and types of aggressive behavior in school children. (2) To identify the influence of age and sex on aggressive behavior. **Materials and Methods**: A cross-sectional study was conducted in Anandanagar High School, Singur village, West Bengal. Participants were 161 boys and 177 girls of classes VII to IX. The students were asked to complete a self-administered questionnaire indicating the types of aggressive behavior by them in the previous month and to assess themselves with reference to statements indicating verbal/physical aggression. **Results**: Overall, 66.5% of the children were physically aggressive in the previous month: Boys 75.8%, girls 58.2% (\( P = 0.001 \)); 56.8% were verbally aggressive: Boys 55.2%, girls 61% (\( P = 0.97 \)). Verbal indirect passive aggression was more common among girls (55.3%) than among boys (22.3%) (\( P = 0.000 [1.17E^{29}] \)). Boys were more liable to physical aggression, viz. 60.2% of the boys would hit on provocation compared with only 9% of the girls (\( P = 0.000 [6.6E^{-23}] \)). Regarding attributes indicating verbal aggression, girls were more argumentative (63.8%) than boys (55.2%) (\( P = 0.134 \)) and disagreeing (41.8%) compared with boys (33.5%) (\( P = 0.145 \)). With increasing age/class, physical direct active aggression decreased while physical indirect passive and verbal indirect passive aggression increased. No classes had been taken on anger control/management by school the authorities. **Conclusions**: Aggressive behavior was common both among boys and girls. Life skills education/counseling/classroom management strategies are recommended.
Key Words: child health, behaviour, school child health, Rural area, West Bengal.

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Of the three most vulnerable segments of society, viz., infants/children, pregnant women, and old-age-people, the pregnant women are highly prone to anemia. Anemia in pregnancy is one of the major causes of maternal morbidity, mortality and reproductive wastage in the world including India. However, regional and community variations for anemia exist throughout India. This study aims at exploring the magnitude of anemia in pregnant women of coastal Odisha. A cross-sectional study of 180 pregnant women, attending two major hospitals of coastal Odisha, was carried out during 2004-2005 with special reference to vulnerable communities and district locations. Study revealed an alarmingly high incidence of 71.1% of anemia indicating poor maternal and child health care in general castes, scheduled castes and scheduled tribes of coastal Odisha. Nutritional supplementations were suggested to overcome the low level of hemoglobin and to get better pregnancy outcome in the vulnerable communities of pregnant women in coastal region of Odisha.

Key Words: Anaemia, Pregnant women, Antenatal care, Community study, Coastal Odisha.

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This article explores the non-medical causes of maternal deaths to understand if these deaths could have been prevented with timely care. It is based on a study of maternal deaths in two blocks of Godda district of Jharkhand over a period of one year. These deaths were concentrated among young women from poor, marginalised households. Delays at different levels owing to improper and multiple referrals by facilities, absence of easily accessible and quality emergency obstetric care, lack of transport facilities and high out-of-pocket expenditure seem to be the main non-medical factors for the high maternal mortality rate.11

Key Words: Maternal Mortality, Mortality.

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This hospital based retrospective study was undertaken to evaluate the differences if any among early and late starters of Oseltamivir regarding persistence of symptoms like fever, cough, running nose and need for hospitalisation after their treatment with age and weight specific doses of Oseltamivir. In this study, reviewed case history of 193 children positive for novel H1N1 influenza by RT-PCR who came to the outpatient/emergency department of Sir Padmapat Mother and Child Health Institute, Jaipur, Rajasthan, India. Oseltamivir was given to all the patients. Out of 193, 186 patients were treated on outdoor patient basis, while 7 patients required hospitalisation. Mortality among study group was nil. 182 patients were asymptomatic/ clinically well, while 11 patients had persistence of symptoms at completion of five days of therapy in forms of fever (6/11), cough (11/11) and running nose(2/11), which also recovered with additional symptomatic therapy of 2-4 days. There was no significant difference statistically regarding outcome, persistence of fever and other symptoms, need for hospitalisation among early and late starters of oseltamivir. Hence signifying that late therapy for treatment of paediatric swine flu cases.

**Key Words:** Paediatric Swine Flu, Early & Late starters, Oseltamivir.


A descriptive study was conducted with an objective to determine the predictors of mortality among referred neonates and to ascertain their transport characteristics. A total of 300 consecutive neonates who were transferred to the centre were enrolled in the study. Following information were recorded: maternal details, birth details, interventions before transportation, details of transportation and neonatal condition at arrival. Detailed clinical assessment and management was done as per standard neonatal protocols. Birth weight <1 kg (OR 0.04; 95% CI: 0.006-0.295, P<0.01) and transportation time >1 hour (OR 5.58; 95% CI: 1.41-22.01, P=0.01) were found to be significant predictors for mortality among the transported neonate. Transport characteristics reflect road transport with limited utility of ambulances and lack of trained health personal. Hence to conclude, extreme low birth weight and prolonged transportation time were found to be significant predictors of neonatal mortality among the transported neonate.

**Key Words:** Ambulance, Birth weight, Neonatal transport, Road transport, Transportation time.

Defining the human resource needs for providing quality maternal, newborn, and child health services across such a large and diverse population country like India is truly challenging. The effective response to significant challenges and increased requirements of evidence-based effectiveness of the public health projects on maternal and child health is putting pressure on existing program managers to acquire new advanced academic training and information. The data regarding the existing courses on reproductive and child health and related fields in the country were obtained by a predefined search made on the Internet through the Google search engine in December 2011. The collected data were the name and location of the institution offering the respective course, theme, course duration, course structure, eligibility criteria, and mode of learning. In India, around 15 institutes are offering certificate/postgraduate diploma courses on maternal and child health either as a regular program or through distance education program. The admission procedure for each institute is independent of others. The courses vary in terms of duration, eligibility criteria, and fee structure. Conceptualizing an educational initiative in response to national demands for increased workforce capacity to eliminate key medical and nonmedical educational barriers and financial and nonfinancial barriers to advanced academic preparation would enhance the quality of services available in the region.

**Key Words**: Distance education, Management, Maternal and child health, Public health.


A community based cohort study on birth weight of newborns was conducted among pregnant women of an urban slum in Bhupal, India. The study was carried out to assess the magnitude of low birth weight (LBW) and factors contributing it in an urban slum community. Socio-demographic and maternal characteristics were examined applying statistical techniques to find out the variables associated with the LBW. An additional schedule was used to collect information from mothers about their socio-demographic background, dietary intake and the rest during the pregnancy. Weight of newborns of mothers registered in the study and delivering at the district hospital was recorded. Mean birth weight of newborns of 290 registered mothers was 2.57 ± 0.36 g. One hundred and five newborns (36.2%) had a birth weight lesser than 2500 g. Among different variables studied, statistically significant association was found in case of occupation, daily calorie intake and duration of day-time rest taken by pregnant women.

**Keywords**: Determinants of low birth weight, Low birth weight, Urban slum

A descriptive study was conducted with an objective to determine the predictors of mortality among referred neonates and to ascertain their transport characteristics. A total of 300 consecutive neonates who were transferred to the centre were enrolled in the study. Following information were recorded: maternal details, birth details, interventions before transportation, details of transportation and neonatal condition at arrival. Detailed clinical assessment and management was done as per standard neonatal protocols. Birth weight <1 kg (OR 0.04; 95% CI: 0.006-0.295, P<0.01) and transportation time >1 hour (OR 5.58; 95% CI: 1.41-22.01, P=0.01) were found to be significant predictors for mortality among the transported neonate. Transport characteristics reflect road transport with limited utility of ambulances and lack of trained health personal. Hence to conclude, extreme low birth weight and prolonged transportation time were found to be significant predictors of neonatal mortality among the transported neonate.

**Key Words:** Neonate, Child mortality, Delhi


Single motherhood in sub-Saharan Africa has received surprisingly little attention, although it is widespread and has critical implications for children’s well-being. Using survival analysis techniques, we estimate the probability of becoming a single mother over women’s life course and investigate the relationship between single motherhood and child mortality in 11 countries in sub-Saharan Africa. Although a mere 5% of women in Ethiopia have a premarital birth, one in three women in Liberia will become mothers before first marriage. Compared with children whose parents were married, children born to never-married single mothers were significantly more likely to die before age 5 in six countries (odds ratios range from 1.36 in Nigeria to 2.61 in Zimbabwe). In addition, up to 50% of women will become single mothers as a consequence of divorce or widowhood. In nine countries, having a formerly married mother was associated with a significantly higher risk of dying (odds ratios range from 1.29 in Zambia to 1.75 in Kenya) relative to having married parents. Children of divorced women typically had the poorest outcomes. These results highlight the vulnerability of children with single mothers and suggest that policies aimed at supporting single mothers could help to further reduce child mortality in sub-Saharan Africa.

**Key Words:** Single Motherhood, Child mortality, Africa


Mother’s formal schooling—even at the primary level—is associated with lower risk of child mortality, although the reasons why remain unclear. This study examines whether mother’s reading skills help to explain the association in Nigeria. Using data from the Demographic and Health Survey, the analysis demonstrates that women’s reading skills increase linearly with years of primary school; however, many women with several years of formal school are unable to read at all. The results further show that mother’s reading skills help to explain the relationship between mother’s formal schooling and child mortality, and that mother’s reading skills are highly associated with child mortality. The study highlights the need for
more data on literacy and for more research on whether and how mother’s reading skills lower child mortality in other contexts.

**Key Words:** Reading skills, Child mortality, Nigeria, Skills


Deviations from the Gompertz law of exponential mortality increases in late-middle and early-old age are commonly neglected in overall mortality analyses. In this study, we examined mortality increase patterns between ages 40 and 85 in 16 low-mortality countries and demonstrated sex differences in these patterns, which also changed across period and cohort. These results suggest that the interaction between aging and death is more complicated than what is usually assumed from the Gompertz law and also challenge existing biodemographic hypotheses about the origin and mechanisms of sex differences in mortality. We propose a two-mortality model that explains these patterns as the change in the composition of intrinsic and extrinsic death rates with age. We show that the age pattern of overall mortality and the population heterogeneity therein are possibly generated by multiple dynamics specified by a two-mortality model instead of a uniform process throughout most adult ages.

**Key Words:** Early –old age, Mortality,


Study investigate factors affecting women’s decisions to terminate pregnancies in Matlab, Bangladesh, using logistic regression on high-quality data from the Demographic Surveillance System on more than 215,000 pregnancies that occurred between 1978 and 2008. Variables associated with the desire not to have another birth soon (very young and older maternal age, a greater number of living children, the recent birth of twins or of a son, a short interval since a recent live birth) are associated with a greater likelihood of pregnancy termination, and the effects of many of these explanatory variables are stronger in more recent years. Women are less likely to terminate a pregnancy if they don’t have any living sons or recently experienced a miscarriage, a stillbirth, or the death of a child. The higher the woman’s level of education, the more likely she is to terminate a pregnancy. Between 1982 and the mid-2000s, pregnancy termination was significantly less likely in the area of Matlab with better family planning services.

**Key Words:** Pregnancy –Termination, Bangladesh

The STEPS Study aims to search for the precursors and causes of problems in child health and well-being by using a multidisciplinary approach. The cohort consists of all mothers (Finnish or Swedish speaking) who had live deliveries in the Hospital District of Southwest Finland from January 2008 to April 2010 and their children (n = 9811 mothers, n = 9936 children). Of these, 1797 mothers and their 1827 children were recruited to an intensive follow-up group during the first trimester of pregnancy or soon after delivery. Information about the whole study cohort is based on pregnancy follow-up data from maternity clinics, National Longitudinal Census Files and child welfare clinics. Data from multiple sources are used to obtain a picture of the overall well-being of the child and the family. After birth, study visits include several clinical examinations. Collaboration is encouraged, and access to the data will be available when the data set is complete.

**Key Words:** Healthy Children, Child development


The application of the World Health Organization (WHO) Child Growth Standards released in 2006 showed that in many low- and middle-income countries (LMICs), a child’s length is already compromised at birth. In this issue of the IJE, Christian and colleagues make an important contribution to understanding the extent to which foetal growth restriction contributes to childhood stunting and other indicators of nutritional status. The consortium of researchers, pooling data from 19 birth cohorts from LMICs, show that childhood undernutrition has its origins in the foetal period. Relative to children born adequate size-for-gestational age (AGA) and at term, the odds ratios of childhood (12–60 months) stunting associated with AGA and preterm; small-for-gestational age (SGA) and term; and SGA and preterm; are 1.93, 2.43 and 4.51, respectively. A similar magnitude of risk is observed for wasting and underweight. Importantly, despite the large variation in the prevalence of both SGA and preterm birth, the risk of undernutrition associated with being born too small or too soon is comparable across populations and regions, reflecting common underlying causes of either foetal growth restriction or preterm birth. The results indicate a stronger association between SGA and stunting than between preterm and stunting. In contrast, preterm birth – which affects a smaller number of neonates – is associated with a higher risk of neonatal mortality, with relative risk ranging from 6 to 9 vs. SGA alone, which was consistently associated with a 3-fold increased risk.

**Key Words:** Childhood, Child nutrition, Undernutrition


Both increasing women’s autonomy and increasing husbands’ involvement in maternal health care are promising strategies to enhance maternal health care utilization. However, these two may be at odds with each other insofar as autonomous women may not seek their husband’s involvement, and involved husbands may limit women’s autonomy.
This study assessed the relationship between women's autonomy and husbands' involvement in maternal health care. Field work for this study was carried out during September–November 2011 in the Kailali district of Nepal. In-depth interviews and focus group discussions were used to investigate the extent of husbands' involvement in maternal health care. A survey was carried out among 341 randomly selected women who delivered a live baby within one year prior to the survey. The results show that husbands were involved in giving advice, supporting to reduce the household work burden, and making financial and transportation arrangements for the delivery. After adjustment for other covariates, economic autonomy was associated with lower likelihood of discussion with husband during pregnancy, while domestic decision-making autonomy was associated with both lower likelihood of discussion with husband during pregnancy and the husband's presence at antenatal care (ANC) visits. Movement autonomy was associated with lower likelihood of the husband's presence at ANC visits. Intra-spousal communication was associated with higher likelihood of discussing health with the husband during pregnancy, birth preparedness, and the husbands' presence at the health facility delivery. The magnitude and direction of association varied per autonomy dimension. These findings suggest that programs to improve the women's autonomy and at the same time increase the husband's involvement should be carefully planned. Despite the traditional cultural beliefs that go against the involvement of husbands, Nepalese husbands are increasingly entering into the area of maternal health which was traditionally considered ‘women's business’.

Keywords: Women's autonomy; Husbands' involvement; Maternal health; Nepal


Can the rise in obesity among children be attributed to the intergenerational transmission of parental influences? Does this trend affect the influence of parent's socioeconomic status on obesity? This paper documents evidence of an emerging social gradient of obesity in pre-school children resulting from a combination of both socio-economic status and less intensive childcare associated with maternal employment, when different forms of intergenerational transmission are controlled for. We also estimate and decompose income related inequalities in child obesity. We take advantage of a uniquely constructed dataset from Spain that contains records form 13,358 individuals for a time period (years 2003–2006) in which a significant spike in the growth of child obesity was observed. Our results suggest robust evidence of both socioeconomic and intergenerational gradients. Results are suggestive of a high income effect in child obesity, alongside evidence that income inequalities have doubled in just three years with a pure income effect accounting for as much as 72–66% of these income inequality estimates, even when intergenerational transmission is accounted for. Although, intergenerational transmission does not appear to be gender specific, when accounted for, mother's labour market participation only explains obesity among boys but not among girls. Hence, it appears income and parental influences are the central determinants of obesity among children.

Keywords: Spain; Child obesity; Intergenerational transmission; Socio-economic gradient; Income inequalities in child health.
Despite rising uptake of maternal healthcare in Pakistan, inequities persist. To-date, attempts to explain and address these differentials have focused predominantly on increasing awareness, geographic and financial accessibility. However, in a context where 70% of healthcare is private sector provided, it becomes pertinent to consider the value associated with this good. This study examined patterns of maternal healthcare use across socioeconomic groups within a rural community, and the meanings and values attached to this behaviour, to provide new insight into the causes of persistent inequity. A 10-month qualitative study was conducted in rural Punjab, Pakistan in 2010/11. Data were generated using 94 in-depth interviews, 11 focus group discussions and 134 observational sessions. Twenty-one pregnant women were followed longitudinally as case studies. The village was comprised of distinct social groups organised within a caste-based hierarchy. Complex patterns of maternal healthcare use were found, linked not only to material resources but also to the apparent social status associated with particular consumption patterns. The highest social group primarily used free public sector services; their social position ensuring receipt of acceptable care. The richer members of the middle social group used a local private midwife and actively constructed this behaviour as a symbol of wealth and status. Poorer members of this group felt pressure to use the afore-mentioned midwife despite the associated financial burden. The lowest social group lacked financial resources to use private sector services and opted instead to avoid use altogether and, in cases of complications, use public services. Han, Nunes, and Dreze’s (2010) model of status consumption offers insight into these unexpected usage patterns. Privatization of healthcare within highly hierarchical societies may be susceptible to status consumption, resulting in unforeseen patterns of use and persistent inequities. To-date these influences have not been widely recognised, but they deserve greater scrutiny by researchers and policy-makers given the persistence of the private sector.

**Keywords:** Pakistan; Maternal health services; Caste; Status consumption; Status symbol; Public sector healthcare; Private sector healthcare; Midwife

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Women’s autonomy and its relation to reproductive behaviour is a major area of concern, as it reduces maternal mortality and improves child health. A number of studies examined women’s autonomy and its relationship with reproductive health outcomes and found that the status of women is an important determinant of maternal mortality and morbidity. Increase in women’s autonomy will lead to mortality decline and improve health outcomes for women and their children.3 A study in Uttar Pradesh in North India shows that women’s autonomy is the major determinant of maternal health care utilization.4 The study shows that women with greater freedom of movement are more likely to receive antenatal care and to use delivery care. A study conducted by Kishor5 found women’s autonomy to be an important explanatory factor in child survival. Another study in India has shown that women who score greater autonomy are more likely to use antenatal and delivery care for their last birth than women with lower autonomy.6
Better health care utilization rates have been reflected in south Indian women as they have greater autonomy as compared to north Indian.

**Keywords:** Pakistan; Maternal health care; Women's autonomy.

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The two groups were homogenous with regard to all demographic and obstetrical variables as analyzed by Chi-square and Fishers exact test. Student "t" test was used to compare the mean differences between the two groups on the duration of second, third stages of labor, the amount of blood loss, the intensity of labor pain, quality of Fetal Heart Rate patterns, quality of maternal blood pressure and the Apgar scores of the newborn at 1 and 5 minutes of birth. Reduced reporting of severe pain among 16 (16%) of the participants in the supported sitting group during the second stage of labor as compared to the highest number of the participants 58 (58%) in the lithotomy position group who reported the pain as very severe on the Visual Analogue Pain Scale -100mm. The mean intensity of labor pain scores were 80 mm among the participants in the supported sitting group versus 92mm in the lithotomy position group, with the significant mean difference of 12mm lower pain scores in VAS, among participants in the supported sitting group, "t"= 10.390, p<0.001 than those in the lithotomy position. All the participants in the supported sitting group 100 (100%) had maintained normal baseline blood pressure throughout, while as 17 (17%) of the participants in the supine- lithotomy position had a drop in their baseline blood pressure, as the mothers were lying flat on their back in supine position resulting in supine hypotension.

**Keywords:** Pakistan; Maternal birth;

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Both increasing women's autonomy and increasing husbands' involvement in maternal health care are promising strategies to enhance maternal health care utilization. However, these two may be at odds with each other insofar as autonomous women may not seek their husband's involvement, and involved husbands may limit women's autonomy. This study assessed the relationship between women's autonomy and husbands' involvement in maternal health care. Field work for this study was carried out during September–November 2011 in the Kailali district of Nepal. In-depth interviews and focus group discussions were used to investigate the extent of husbands' involvement in maternal health care. A survey was carried out among 341 randomly selected women who delivered a live baby within one year prior to the survey. The results show that husbands were involved in giving advice, supporting to reduce the household work burden, and making financial and transportation arrangements for the delivery. After adjustment for other covariates, economic autonomy was associated with lower likelihood of discussion with husband during
pregnancy, while domestic decision-making autonomy was associated with both lower likelihood of discussion with husband during pregnancy and the husband's presence at antenatal care (ANC) visits. Movement autonomy was associated with lower likelihood of the husband's presence at ANC visits. Intra-sposual communication was associated with higher likelihood of discussing health with the husband during pregnancy, birth preparedness, and the husbands' presence at the health facility delivery. The magnitude and direction of association varied per autonomy dimension. These findings suggest that programs to improve the women's autonomy and at the same time increase the husband's involvement should be carefully planned. Despite the traditional cultural beliefs that go against the involvement of husbands, Nepalese husbands are increasingly entering into the area of maternal health which was traditionally considered ‘women's business’.

**Keywords:** Women's autonomy; Husbands’ involvement; Maternal health; Nepal

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In the United States, race and ethnicity are considered key social determinants of health because of their enduring association with social and economic opportunities and resources. An important policy and research concern is whether the U.S. is making progress toward reducing racial/ethnic inequalities in health. While race/ethnic disparities in infant and adult outcomes are well documented, less is known about patterns and trends by race/ethnicity among children. Our objective was to determine the patterns of and progress toward reducing racial/ethnic disparities in child health. Using nationally representative data from 1998 to 2009, we assessed 17 indicators of child health, including overall health status, disability, measures of specific illnesses, and indicators of the social and economic consequences of illnesses. We examined disparities across five race/ethnic groups (non-Hispanic white, non-Hispanic black, Hispanic, non-Hispanic Asian, and non-Hispanic other). We found important racial/ethnic disparities across nearly all of the indicators of health we examined, adjusting for socioeconomic status, nativity, and access to health care. Importantly, we found little evidence that racial/ethnic disparities in child health have changed over time. In fact, for certain illnesses such as asthma, black–white disparities grew significantly larger over time. In general, black children had the highest reported prevalence across the health indicators and Asian children had the lowest reported prevalence. Hispanic children tended to be more similar to whites compared to the other race/ethnic groups, but there was considerable variability in their relative standing. Racial/ethnic differences in child health in the United States across 17 indicators are examined. Little evidence that child racial/ethnic disparities in health are improving over time. For asthma, black–white disparities grew significantly larger between 1998 and 2009. Black children appeared more likely to be diagnosed with autism in the late 1990s compared to white children, but were less likely by 2009.

**Keywords:** Race; Ethnicity; Inequality; Disparities; Child health; Asthma; Autism; Trends; United States

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2. **DISEASES**
Hospitals and health care institutions are facing the challenge of improving the quality of their services while reducing their costs. The current study presents the application of operations management practices in a dermatology oncology outpatient clinic specialized in skin cancer treatment. An interesting alternative considered by the clinic is the implementation of a one-stop-shop concept for the treatment of new patients diagnosed with basal cell carcinoma. This alternative proposes a significant improvement in the average waiting time that a patient spends between the diagnosis and treatment. This study is focused on the identification of factors that influence the average throughput time of patients treated in the clinic from the logistic perspective. A two-phase approach was followed to achieve the goals stated in this study. The first phase included an integrated approach for the deterministic analysis of the capacity using a demand-supply model for the hospital processes, while the second phase involved the development of a simulation model to include variability to the activities involved in the process and to evaluate different scenarios. Results showed that by managing three factors: the admission rule, resources allocation and capacity planning in the dermato-oncology unit throughput times for treatments of new patients can be decreased with more than 90 %, even with the same resource level. Finally, a pilot study with 16 patients was also conducted to evaluate the impact of implementing the one stop shop concept from a clinical perspective. Patients turned out to be satisfied with the fast diagnosis and treatment.

Keywords One-stop-shop . Capacity analysis . Discrete event simulation . Outpatient clinic . Skin cancer

It is widely believed that the US health care system needs to transition from a culture of reactive treatment of disease to one of proactive prevention. As a tool for understanding the appropriate allocation of spending to prevention versus treatment (including research into improved prevention and treatment), a simple Markov model is used to represent the flow of individuals among states of health, where the transition rates are governed by the magnitude of appropriately-lagged expenditures in each of these categories. The model estimates the discounted cost and discounted effectiveness (measured in quality adjusted life years or QALYs) associated with a given spending mix, and it allows computing the marginal cost-effectiveness associated with additional spending in a category. We apply
the model to explore interactions of alternative investments in cardiovascular disease (CVD) and to identify an optimal spending mix. Under the assumptions of our model structure, we find that the marginal cost-effectiveness of prevention of CVD varies with changes in spending on treatment (and vice versa), and that the optimal mix of CVD spending (i.e., the spending mix that maximizes the overall QALYs achieved) would, indeed, shift spending from treatment to prevention.

**Keywords** Cost-effectiveness, Cardiovascular, disease prevention . Cardiovascular disease treatment . Cardiovascular disease research . Markov model.


A cohort of older people living in a low-resource setting in Nairobi is followed to understand the transitions in caregiving status and trajectories in health over a 3-year period. Three categories of older people comprising 65 AIDS caregivers, 102 Other caregivers and 1,322 noncaregivers identified at baseline were assessed at end-line based on two self-reported health outcome measures, a functionality score and having a severe health problem. A majority of caregivers were still providing care at the end of the study, and or had taken on new care recipients. Compared with noncaregivers, AIDS caregivers reported poor health, with men more likely to report poor health than women. New caregivers also reported poorer health compared with noncaregivers. The results indicate improvement in health over time among male caregivers supporting the *adaptation* model. We recommend timely programs to support caregivers particularly at the onset of caregiving.

**Keywords** AIDS; Kenya; .

Climate change is an escalating issue of concern especially towards health. Malaria, as one of the major public health problems in Jhapa district of Nepal, is one of the sensitive diseases related to climate change. This study has been carried out to assess the relationship between climatic variables and malaria and to find out the range of non-climatic factors that can confound the relationship of climate change and human health. This was a retrospective study in which data of past 10 years relating to climate and disease (malaria) variables were analyzed. The occurrence of malaria in Jhapa was seen almost throughout the year with seasonal fluctuations. With mean annual temperature increase (0.04°C/year), the increase in malaria cases in the district was observed with correlation of 0.284 (p <0.01) and 0.338 (p <0.001) with maximum and minimum temperature, respectively. Rainfall pattern was observed to be decreasing at an average rate of 7.1 mm/year but the malaria cases appeared mostly during the heavy rainfall season/period and had significant correlation between the two variables. On the contrary, Relative Humidity had no significant correlation with malaria occurrence. Climatic variables (except Relative Humidity) were found to be correlated with malaria occurrence but were not the significant predictors when time-series analysis was conducted.

**Keywords** AIDS; Kenya;.


For any intervention in public health, one needs to gather the evidence on the basis of which systematic plans and strategies can be built. In Rajasthan, for HIV and AIDS prevention, care and support activities apex organisation is Rajasthan State AIDS Control Society (RSACS). IIHMR, Jaipur, provided technical support to RSACS in targeted interventions, capacity building, strategic planning and public private partnership. In systematising the intervention with the sex workers living in district Sawai Madhopur, a situational analysis was carried out. The district is internationally known tourist place in Rajasthan and has remarkable mobility pattern among sex workers. It was found that in the district, the risk and vulnerabilities of sex workers has increased because of this mobility and illiteracy. It was reported that majority of sex workers in Sawai Madhopur knew that AIDS is not curable and the rest had either no idea or they thought AIDS could be cured. Amongst those who reported that they had no idea about the cure of HIV/AIDS, most of them were active sex workers. These active sex workers, hence, due to lack of awareness about STI, HIV and AIDS, were very vulnerable against HIV infection. Majority of the sex workers reported that they were not willing to use female condoms. Nearly half of the sex workers in Sawai Madhopur joined this profession as tradition of their families and caste. For HIV prevention and BCC, the better strategy is to use such IEC materials which contains pictures on various issues like condom negotiation, managing violence, sex workers collectives, correct and consistent use of condoms, STI, RTI, HIV and AIDS. Efforts should also be made to integrate the children from sex workers family into formal education process and, simultaneously, a little older children should be imparted skills in alternative trainings for joining other acceptable means of earning livelihood.

**Keywords** AIDS; Kenya;.

27. A STUDY ON RISK FACTORS OF BREAST CANCER AMONG PATIENTS ATTENDING THE TERTIARY CARE IMP UDUPI DISTRICT. RAMCHANDRA
Cancer has become one of the ten leading causes of death in India. Breast cancer is the most common diagnosed malignancy in India, it ranks second to cervical cancer. An increasing trend in incidence is reported from various registries of national cancer registry project and now India is a country with largest estimated number of breast cancer deaths worldwide. To study the factors associated with breast cancer. To study the association between breast cancer and selected exposure variables and to identify risk factors for breast cancer. A hospital based Case control study was conducted at Shirdi Sai Baba Cancer Hospital and Research Center, Manipal, Udupi District. Total 188 participants were included in the study, 94 cases and 94 controls. All the study participants were between 25 to 69 years of age group. The cases and controls were matched by ± 2 years age range. Non vegetarian diet was one of the important risk factors (OR 2.80, CI 1.15-6.81). More than 7 to 12 years of education (OR 4.84 CI 1.51-15.46) had 4.84 times risk of breast cancer as compared with illiterate women. The study suggests that non vegetarian diet is the important risk factor for Breast Cancer and the risk of Breast Cancer is more in educated women as compared with the illiterate women. This is a Hospital based study so generalisability of the findings could be limited.

**Keywords** Cancer-Breast; Diseases; Karnataka;

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To determine the prevalence of HCV co-infection and its correlation with demographic and risk factors among human immunodeficiency virus (HIV)-infected individuals attending Shiraz behavioral diseases consultation (SBDC) Center in southern Iran. **Materials and Methods:** In a cross-sectional study, 226 consecutive HIV-positive patients who referred to SBDC Center from April 2006 to March 2007 were interviewed face-to-face to record demographic data and risk factors of HIV transmission. A 10ml sample of venous blood was drawn from every subject and tested for HCV-antibodies by third generation enzyme linked immunosorbant (ELISA) and recombinant immunoblot assays (RIBA). All samples were also analyzed by qualitative reverse transcriptase polymerase chain reaction (RT-PCR) for detection of HCV-RNA. **Results:** The study population consisted of 214 men (94.7%) and 12 women (5.3%) with a mean age of 35.6 ± 7.9 years. The most prevalent risk factor was imprisonment (88.9%) followed by injecting drug use (79.2%). The prevalence of HCV infection was 88.5% by ELISA and 86.7% by RIBA, while HCV viremia was detected in 26.1% of the patients. HCV-antibody positivity was significantly associated with gender, age, marital status, occupation, injecting drug use, and history of imprisonment. It was inversely related to "having an infected or high risk sexual partner". In the logistic regression model, the predictors of HCV-positivity were injecting drug use (OR = 24.9, P = 0.004) and imprisonment (OR = 21.4, P < 0.001). **Conclusions:** Prevalence of HCV infection among HIV-positive individuals in our region is very high and there is a need for stricter preventive actions against transmission of HCV among this group of patients.
**29. EXTENSIVELY DRUG RESISTANT TUBERCULOSIS: A MENACE TO THE CONTROL OF DRUG RESISTANT TUBERCULOSIS. VIJAYESH KUMAR TIWARI. The Indian Practitioner. Vol. 66No.5, May 2013. 296p.**

Extensively Drug Resistance Tuberculosis is a great challenge for the treating physicians and has baffled the health care providers, tuberculosis control programme managers, as well as the patients. Extensively Drug Resistance Tuberculosis is a form of Tuberculosis caused by the mycobacteria resistant to the most effective anti tuberculosis drugs such as rifampicin and isoniazid as well as any member of quinolone family and at least one of the second line injectable drugs-kanamycin, amikacin or capreomycin. XDR TB carries a fivefold increase in the risk of death compared to patients with MDR TB. The state of Sikkim has 420 Multi drug resistant tuberculosis cases including seven cases of Extensively Drug Resistant Tuberculosis.

**Key Words:** Drug resistance, MDR, DOTS/DOTS plus programme, DST, RNTCP


In this contribution we put forward a novel hypothesis concerning the aetiology of Type 2 (non-insulin dependent) diabetes mellitus. The concept underlying our hypothesis is that poor foetal and early post-natal nutrition imposes mechanisms of nutritional thrift upon the growing individual. We propose that one of the major long-term consequences of inadequate early nutrition is impaired development of the endocrine pancreas and a greatly increased susceptibility to the development of Type 2 diabetes. In the first section we outline our research which has led to this hypothesis. We will then review the relevant literature. Finally we show that the hypothesis suggests a reinterpretation of some findings and an explanation of others which are at present not easy to understand.

**Key Words:** Non Communicable diseases, poor

David J.P. Barker was a physician, a biologist and one of the most influential epidemiologists of our time. His ‘foetal programming hypothesis’ ('Barker hypothesis') transformed our thinking about the causes of diabetes, cardiovascular disease and cancer. He challenged the idea that they are explained by bad genes and unhealthy adult lifestyles, and proposed that their roots lie in the early life environment: ‘The nourishment a baby receives from its mother, and its exposure to infection after birth, determine its susceptibility to chronic disease in later life’. By permanently ‘programming’ the body’s metabolism and growth, they determine the pathologies of old age. His initially controversial, but now widely accepted, ideas have stimulated an explosion of research worldwide into early development and later disease ('developmental origins of health and disease' or DOHaD). David thought that ‘the poorer health of people in lower socio-economic groups or living in impoverished places is linked to neglect of the welfare of mothers and babies’. He argued that to pull back the modern epidemics of chronic disease we should prioritize the health and nutrition of girls, pregnant women and infants.

**Key Words:** Diseases.

3. **DRUG ABUSE**


A cross-sectional study was designed to assess the prevalence of periodontal diseases among tobacco and non-tobacco users. A total of 2,156 dentate subjects were selected in the age group of 35-44 years through multi-stage sampling method. A total of 350 and 175 subjects were selected from household survey from each district in rural and urban areas. Subjects were interviewed for the tobacco usage status, followed by clinical assessment of periodontal status. Prevalence of calculus, periodontal pockets of 4-5 mm depth and loss of attachment of 0-3 mm and 4-5 mm was significantly more frequent among current tobacco users. The subject with smoking and chewing tobacco has an odds ratio (OR) 1.6 (95% confidence intervals [CI] 1.14-2.31) and OR 1.7 (95% CI 1.38-2.28) respectively. The findings contribute to the evidence of smoking as a risk factor for periodontal disease.

**Key Words:** Chewing, Periodontal disease, Smoking, Tobacco.
Drug use and sex work are both controversial issues with multiple interesting connections. This article presents findings from the first-ever survey on drug use and sex work in Hungary. The study aimed to chart the prevalence, function, and problems of drug use among various groups of sex workers. Survey forms were collected from 510 participants (average age 29.5 years, 91% female) in and near Budapest over a period of six months. The results show that sex workers have manifold higher lifetime prevalence, 84.3%, of illicit drug use compared with the prevalence of the Hungarian general young adult population, 20.9%. In our sample, it was very rare to perform sex work for alcohol or drugs (5%) or for money to purchase alcohol or drugs (20%). Findings also indicate notable relationships between location-based sex work types and the drugs used. One-third of the street sex workers reported regular amphetamine use, but none reported regular cocaine use. On the contrary, no escorts reported regular amphetamine use, but 38% admitted to regular cocaine use. The location of sex work may pose an additional occupational health risk factor for substance use. Regular use of alcohol was twice as typical (64%) for sex workers who were employed in bars, in salons/parlors, or alone in rented apartments than it was for those working in other indoor locations (33–34%). Furthermore, 74% of street sex workers smoked tobacco compared with 17% of escorts. Problem drug use was roughly estimated by asking the participants about the main problem domains (medical, legal, social, etc.) from the Addiction Severity Index instrument. The most problematic drug was amphetamine, and the most frequent problem was prolonged or excessive drug use. These main findings may contribute to more focused planning of health intervention services, harm reduction measures, outreach programs, and specific treatments.

**Keywords:** Drug users; Sex workers; Substance abuse; Prostitution/statistics & numerical data; Hungary

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**4. ELDERLY CARE**

**34. ELDER SELF-NEGLECT IS ASSOCIATED WITH INCREASED RISK FOR ELDER ABUSE IN A COMMUNITY-DWELLING POPULATION: FINDINGS FROM THE CHICAGO HEALTH AND AGING PROJECT XINQI DONG, , MELISSA SIMON, AND DENIS EVANS. Journal of Aging and Health. 2013, 25(1) 80–96.**

We examined the relationship between self-neglect and risk for subsequent elder abuse report to social services agency. Method: Population-based cohort study conducted Chicago. Primary predictor was elder self-neglect at baseline without concurrent elder abuse. Cox proportional hazard models were used to assess independent associations of elder self-neglect with the risk of subsequent elder abuse using time-varying covariate analyses. Results: Of 10,333 participants, 1,460 were reported for self-neglect and 180 were reported for elder abuse. The
median time from self-neglect to elder abuse was 3.5 years. In multivariable analyses, elder self-neglect was associated with increased risk for subsequent elder abuse (odds ratio, OR, 1.75[1.18-2.59]). Elder self-neglect was also associated with increased risk for subsequent caregiver neglect (OR, 2.09[1.24-3.52]), financial exploitation (OR, 1.73[1.01-2.95]), and multiple forms of elder abuse (HR, 2.06[1.22-3.48]). Conclusion: Elder self-neglect is associated with increased risk for subsequent elder abuse report to social services agency.

**Keywords**: self-neglect report, elder abuse report, aging, elderly, population-based study


The elevated levels of protection, assistance, and care enjoyed by the elderly living in complex households has long been a key assumption of many family system theories. However, although this hypothesis has been demonstrated for contemporary contexts, quantitative evidence for past populations is particularly scarce, if not nonexistent. This article investigates the relationship between old-age mortality and living arrangements in a mid–nineteenth century Tuscan population, where the joint family system of sharecroppers coexisted alongside the nuclear system of day laborers. Our findings demonstrate that within complex households, the complexity of relationships, gender inequalities, and possible competition for care and resources among the most vulnerable household members—namely, the elderly and the young—weakens the assumption that the elderly benefitted from lower rates of old-age mortality.

**Keywords**: Elderly, Mortality-old age, casalguidi

5. **ENVIRONMENTAL HEALTH**

36. **CLIMATE CHANGE AND MALARIA IN JHAPA DISTRICT OF NEPAL: EMERGING EVIDENCES FROM NEPAL. GAJANANDA PRAKASH BHANDARI, MEGHNATH DHIMAL, SWADESH GURUNG, AND CHOPLAL BHUSAL.** *Journal of Health Management* March, 2013, 15: 141-150,
Climate change is an escalating issue of concern especially towards health. Malaria, as one of the major public health problems in Jhapa district of Nepal, is one of the sensitive diseases related to climate change. This study has been carried out to assess the relationship between climatic variables and malaria and to find out the range of non-climatic factors that can confound the relationship of climate change and human health. This was a retrospective study in which data of past 10 years relating to climate and disease (malaria) variables were analyzed. The occurrence of malaria in Jhapa was seen almost throughout the year with seasonal fluctuations. With mean annual temperature increase (0.04°C/year), the increase in malaria cases in the district was observed with correlation of 0.284 (p <0.01) and 0.338 (p <0.001) with maximum and minimum temperature, respectively. Rainfall pattern was observed to be decreasing at an average rate of 7.1 mm/year but the malaria cases appeared mostly during the heavy rainfall season/period and had significant correlation between the two variables. On the contrary, Relative Humidity had no significant correlation with malaria occurrence. Climatic variables (except Relative Humidity) were found to be correlated with malaria occurrence but were not the significant predictors when time-series analysis was conducted.

**Keywords**: Climate Change, Malaria; Disease; Nepal

37. **ASSESSMENT OF VILLAGE WATER AND SANITATION COMMITTEE IN A DISTRICT OF TAMIL NADU, INDIA**


A descriptive study was conducted among 75 members of five Village Water and Sanitation Committees (VWSCs) and 15 local residents in Tamil Nadu, India to assess committee's formation and decision making process. There were 64% females and rest were males, all aged between 20 years and 45 years. A total of 50.7% of them passed 12th standard and 29.3% belonged to self-help groups. Although, all of them were aware about presence of guidelines, none of them knew its contents. About 20% opined that meetings were not being conducted regularly. All members said that they had problems in attending meeting regularly, take decisions if at least 10 (67%) members are present and fund was not adequate for 1 year period. One-third of local residents did not know the committee formation process and none of them aware about guidelines. Formation and decision making process of VWSC should be improved to tackle the sanitation problem.

**Keywords**: Formation and decision making process, Tamil Nadu, Village Water Sanitation Committee

6. **FOOD & NUTRITION**

38. **NUTRITIONAL STATUS OF ADOLESCENTS IN NORTHERN KARNATAKA, INDIA. T.**

Among the interviewed adolescents nearly 90 percent were from rural areas and 60-70 percent from urban areas, were Hindu and most others were Muslim. The proportion of adolescents belonging to scheduled castes and scheduled tribes (SC/STs) was around 10 percent in rural areas and around 15 percent in urban areas. In rural areas, the primary source of household income was about 40 percent from agriculture almost equal proportion from labour work (mainly in agriculture sector) and only about 10 percent was salaried income. On the other hand in urban areas the primary source of income of families of as many as 40-45 percent of adolescents was salaried income, another 30 percent was labour work (mainly in non-agriculture sector) and most others (25%) was business and related activities. As far as modernization index is concerned, the households of about 50 percent of adolescents in rural areas and only 25 percent in urban areas was rated as low. Adolescent boys (67%) in rural areas and (73%) in urban areas were studying at the time of the survey and it was 50 percent and 70 percent respectively for adolescent girls. However, as age increased the proportion studying decreased rapidly among both boys and girls and in both rural and urban areas. The decrease was faster in rural areas than in urban areas and within rural areas it was rapid among girls than among boys. In the age group 18-19 around 53 percent of boys and 58 percent of girls in urban areas and only 39 percent of boys and just 17 percent of girls in rural areas were studying. With respect to work status, among boys 43 percent in rural areas and 28 percent in urban areas were working for money outside home. Among girls it was 26 percent in rural areas and just 5 percent in urban areas. By the age of 19 years, most of the boys in rural areas and majority in urban areas were working; whereas among girls only one-third in rural areas and almost none in urban areas were working. It is interesting to note that in rural areas a sizable proportion of 20 percent of boys in the age group 18-19 years and 8 percent of girls in the age group 13-17 years were working while continuing their studies during holidays, on part-time basis, or in certain seasons. With respect to marital status, hardly any boy was married by age 19. Among girls, in rural areas two percent in the age group 13-14 years, about 16 percent in the age group 15-17 years and as many as 40 percent in the age group 18-19 years were married but in urban areas marriage before age 18 was almost absent and in the age group 18-19 years just 12 percent were married.

Keywords: Nutrition Status; Adolescents; Karnataka.

7. HEALTH CARE
At the heart of the practice of primary care is the concept of a physician panel. A panel refers to the set of patients for whose long term, holistic care the physician is responsible. A physician’s appointment burden is determined by the size and composition of the panel. Size refers to the number of patients in the panel while composition refers to the case-mix, or the type of patients (older versus younger, healthy versus chronic patients), in the panel. In this paper, we quantify the impact of the size and case-mix on the ability of a multi-provider practice to provide adequate access to its empanelled patients. We use overflow frequency, or the probability that the demand exceeds the capacity, as a measure of access. We formulate problem of minimizing the maximum overflow for a multi-physician practice as a non-linear integer programming problem and establish structural insights that enable us to create simple yet near optimal heuristic strategies to change panels. This optimization framework helps a practice: (1) quantify the imbalances across physicians due to the variation in case mix and panel size, and the resulting effect on access; and (2) determine how panels can be altered in the least disruptive way to improve access. We illustrate our methodology using four test practices created using patient level data from the primary care practice at Mayo Clinic, Rochester, Minnesota. An important advantage of our approach is that it can be implemented in an Excel Spreadsheet and used for aggregate level planning and panel management decisions.

Keywords
Panel size · Primary care · Continuity of care · Appointment scheduling

Tactical planning of resources in hospitals concerns elective patient admission planning and the intermediate term allocation of resource capacities. Its main objectives are to achieve equitable access for patients, to meet production targets/to serve the strategically agreed number of patients, and to use resources efficiently. This paper proposes a method to develop a tactical resource allocation and elective patient admission plan. These tactical plans allocate available resources to various care processes and determine the selection of patients to be served that are at a particular stage of their care process. Our method is developed in a Mixed Integer Linear Programming (MILP) framework and copes with multiple resources, multiple time periods and multiple patient groups with various uncertain treatment paths through the hospital, thereby integrating decision making for a chain of hospital resources. Computational results indicate that our method leads to a more equitable distribution of resources and provides
control of patient access times, the number of patients served and the fraction of allocated resource capacity. Our approach is generic, as the base MILP and the solution approach allow for including various extensions to both the objective criteria and the constraints. Consequently, the proposed method is applicable in various settings of tactical hospital management.

**Keywords** Health care · Tactical planning · Resource capacity planning · Patient admission planning · Mixed Integer Linear Programming (MILP)

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Patterns of attachment—normative styles of relating to significant others—impact relationships across adulthood. Preliminary studies link attachment with health outcomes but have yet to examine older adults or functional impairment, and the mechanisms behind this relationship remain unclear. This report investigated how attachment predicted symptoms and functional impairment and tested the mediating roles of positive affect (PA) and negative affect (NA). Methods: 1,118 older adults completed measures of attachment, health symptoms, and functional impairment, together with confounds including age, sex, and income. Results: As expected, security and fearful avoidance predicted greater symptomology, but only fearful avoidance predicted greater functional impairment. Negative affect partially mediated links between attachment and outcomes, but only for fearful avoidance. Discussion: Understanding links between attachment, symptom reports, and functional impairment will facilitate better understanding of positive aging versus premature decline, help identify at risk individuals, and guide interventions to assist optimal functioning in later life.

**Keywords** health, attachment, affect, functional impairment, emotion, later life, older adult, health symptoms

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42. **SERVICE QUALITY, CUSTOMER (PATIENT) SATISFACTION AND BEHAVIOURAL INTENTION IN HEALTH CARE SERVICES: EXPLORING THE INDIAN PERSPECTIVE.** ARJUN MURTI, AASHISH DESHPANDE, AND NAMITA SRIVASTAVA. *Journal of Health Management March 2013 15: 29-44.*
As the health care sector in India gets more competitive, health care practitioners and academic researchers are increasingly interested in exploring how patients perceive the quality before building up their satisfaction levels and generating behavioural intentions. Hospitals today are increasingly realizing the need to focus on service quality as a measure to improve their competitive position. Customer based determinants and perceptions of service quality, therefore, play an important role when choosing a hospital. In this paper, we examine and measure the quality of services and its outcomes (patient’s satisfaction and behavioural intentions) provided by hospitals. In this regard, a review of literature on measuring service quality, patient satisfaction and behavioural intentions in health care scenario has been considered to investigate the direct influence of service quality on behavioural intentions and the mediating role of customer satisfaction on influencing behavioural intentions. The study focuses only on health care services offered by hospitals. Till today, few studies in the developing nations were conducted to understand the types of relationship that exists between three key constructs—service quality, patient satisfaction and behavioural intentions. Majority of the studies have been done in the developed country context, which cannot be generalized in the Indian context. It has been contended that constructs of service quality that are developed in one culture might not be applicable in another culture. This study analyses the suitability of service quality to improve customer satisfaction and in the process positively impacting behavioural intentions in the health care setting.

**Keywords:** Customer satisfaction, Health Care Services; India

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**43. UNIVERSAL HEALTH CARE: THE TROJAN HORSE OF NEOLIBERAL POLICIES. IMRANA QADEER. *Social Change* June 2013 43(2); 149-164.**

This article locates health care and technology within the shifts in capitalist evolution from welfare to neoliberal development and examines why the concept of Comprehensive Primary health care has been distorted by the market to varying extents globally. Its focus is on India’s planning process where the thrust is to transform health services into commodities and tools of extraction of profit to which all levels of health care are subordinated. Since the 1990s, all Plans, official planning committees and legislations are meant to mould services in this direction. Instead of an integrated health service with primary health care getting support from the secondary and tertiary, the current thrust of the planning process has been to fragment health service into independent components—UHC, tertiary care and NRHM—in the name of providing rural and urban health services. In each of these strategies, public–private partnerships, commercialisation and appropriation of the public resources are the dominant trends. UHC thus no more remains the state-led integrated and inclusive service but a Trojan horse of the neoliberal strategy.

**KeyWords:** Health Care ; Trojan horse

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**44. THE EMERGING ‘HEALTH CARE INDUSTRY’ IN INDIA: A PUBLIC HEALTH PERSPECTIVE. INDIRA CHAKRAVARTHI. *Social Change* June 2013, 43(2); 165-176.**
Corporate hospitals are becoming a significant presence within the ‘health care’ industry in India. There is strong advocacy and promotion by the industry, and the government, of the idea that health care infrastructure should not just be viewed as a social good but also as a viable economic venture with productivity. Yet, the discourse on privatisation, on the public–private divide in health systems does not pay attention to the spread of corporate sector activities and corporate financing in health care; to the increasing commercialisation of health services. This brief note highlights some recent trends and features of the hospitals sector of the ‘health care industry’ in India. There is a need to document and analyse the practices and behaviour of the hospital industry, and examine the impact of these changes for the public health systems, for policy and planning in public health, from a critical public health perspective.

Keywords: Health care; Health emergency; Emergency care

45. UNIVERSAL HEALTH COVERAGE: THE NEW FACE OF NEOLIBERALISM. INDRANIL MUKHOPADHYAY. Social Change June 2013, 43(2); 177-190.

Health care services in India have undergone rapid transitions in the last two decades. While government health services have been shrinking and investments got squeezed, the private sector has been promoted as an efficient alternative. This has led to an increasing dependence of people on the private sector for seeking care and a regressive form of financing based on out-of-pocket spending has emerged. The 12th Plan tries to address some of these concerns through Universal Health Coverage. The author argues that while universal access to health is a noble goal, it may not be achieved if an insurance-based model of financing and a managed care approach based on private sector delivery is adopted. Such an approach may facilitate further consolidation of capital at the expense of people’s money. The author draws from international experience to argue that egalitarian and universal access to health care can be provided only if government health services are strengthened.

Keywords: Health care; Public Health; Neoliberalism

46. LOCATING ‘QUALITY’ IN HEALTH CARE AND UNIVERSAL HEALTH CARE MOSAIC. GHODAJKAR PRACHINKUMAR. Social Change June 2013, 43(2); 191-212.

Different concepts of quality in health care have implications for nature, structure and composition of health service systems. Issues of access, cost and quality of care are intricately linked; for recipients, providers as well as for policy-makers. Quality in health care is a complex construct because it is linked not just with the quality of services provided at the institution and systemic level but has several tangible and intangible dimensions including individual patient’s interests and larger societal concerns about improvement in health status. Quality is an important consideration for choosing the services for recipients, accreditation of hospitals for care providers, and for policy-makers while making decisions regarding health service system models. This article traces the way the issue has been dealt with at the policy and planning level so far, including the National Rural Health Mission (NRHM) as well as in the proposed models for Universal Health Care by the High Level Expert Group (HLEG) and 12th Plan Steering committee reports.

Keywords: Health care; Health care quality
Public–private partnerships (PPP) are being touted as the way forward for health care in the country as demonstrated by the draft chapter of the 12th Five-year Plan for health. The planning commission refers to the Rajiv Gandhi Super Specialty Hospital, Raichur, as ‘evidence’ of ‘good’ PPP without mentioning the multiple problems identified in this model, as documented in an evaluation report by the Government of Karnataka. The concerns raised by the evaluation team and the failure of the Planning Commission to take cognizance of these concerns are discussed in some detail in this article. Some of the issues identified with the PPP model of health care in Raichur are the absence of third-party evaluation, poor utilisation rates, lack of measurable benefit to the BPL population and poor governance and accountability systems.

**Keywords**: Public private partnership; Planning commission

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The Rashtriya Swasthya Bima Yojana (RSBY) is a state funded health insurance scheme targeted for families below poverty line (BPL) in India providing a coverage of ₹30,000 for a family of five. This qualitative study covered three districts in Chhattisgarh, India, and included empanelled private for-profit, public and not-for-profit institutions. RSBY beneficiaries constituted a miniscule proportion of the total patient load in large multispecialty hospitals, institutions capable of providing treatment for serious illnesses. Small private nursing homes were the biggest gainers. There was evidence of complicated conditions being booked instead of simpler ones. Some government hospitals reported declines in patient loads after the introduction of the RSBY, clearly signalling a shift from the public to the private sector. Community and Primary Health Centres are unable to compete with private providers as the latter have relatively better patient facilities and specialists. Significantly, for the not-for-profit sector, used to functioning on tight price lines, the RSBY is beginning to provide the elusive sustainability.

**Keywords**: Chhattisgarh- India; Health care; Public health
Various models are being tried out under Public–Private Partnerships in health care. Community health insurance is one of the models for providing health security for the people Below Poverty Line (BPL). Various states are experimenting on community health insurance with largely state financing, private provisioning of health care, especially curative care. When the partnership is with the for-profit private/corporate sector, where the underlying principle is profit making, the core principal of partnerships of beneficence and equity is undermined. The Aarogyasri scheme started in 2007 as a political move is continuing and praised as one of the most effective ways of treating tertiary, curative, largely surgeries and therapies for BPL population and is completely sponsored by the state. This article critically analyses the procedures and the cost incurred in private and public hospitals and finds that Aarogyasri is skewed towards curative tertiary care and is a big drain on the state exchequer with questions of sustainability. Further, this kind of partnership undermines the existence of large public sector, which is underutilised. The way forward for sustainable and comprehensive health care for people of Andhra Pradesh to ensure ‘Arogyandhra’ is to promote and strengthen public sector.

Keywords: Andhra Pradesh; Health scheme; Health policy

The existing national policy framework vis-à-vis vaccines reflects an aggressive push towards introduction of new vaccines in the Universal Immunisation Programme (UIP) without providing an uncompromising scientific basis or committing itself to proven epidemiological needs of the population. The idea of selective immunisation is being undermined by slogans like ‘prevention is better than cure’ that are being trumped up to impart credibility to the effort, given shape by the projected panacea for all ills, that is, Public–Private Partnership (PPP), to push the line that all immunisation is universal. This article examines the aims and motives behind deliberate destruction of the public sector in favour of PPPs and establishes the need for a vaccine policy that is designed to enhance national public capacity for public immunisation programmes as opposed to the present policy that justifies spending public money on privately manufactured vaccines in the name of protection from diseases whose incidence figures and public health statistics are dubious and industry-manufactured.

Keywords: Health care; Vaccines; vaccine policy

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The existing national policy framework vis-à-vis vaccines reflects an aggressive push towards introduction of new vaccines in the Universal Immunisation Programme (UIP) without providing an uncompromising scientific basis or committing itself to proven epidemiological needs of the population. The idea of selective immunisation is being undermined by slogans like ‘prevention is better than cure’ that are being trumped up to impart credibility to the effort, given shape by the projected panacea for all ills, that is, Public–Private Partnership (PPP), to push the line that all immunisation is universal. This article examines the aims and motives behind deliberate destruction of the public sector in favour of PPPs and establishes the need for a vaccine policy that is designed to enhance national public capacity for public immunisation programmes as opposed to the present policy that justifies spending public money on privately produced vaccines in the name of protection from diseases whose incidence figures and public health statistics are dubious and industry-manufactured.

Keywords: Health care; Vaccines; vaccine policy

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Keywords: Health care; Vaccines; vaccine policy
Drugs and vaccines have played a crucial role in increasing dramatically the average life span of humans all over the world since the beginning of the last century. However, there are problems—often, though not always—created by vested interests or by ignorance of their use. They range from the sale of sub-standard or obsolete formulations to unethical nexus between pharmaceutical companies at one level and commercial health care establishments on the other. This article lists some of these problems which get magnified in the prevailing circumstance of a burgeoning profit-driven private health sector and inadequate and ineffective regulatory framework.

**Keywords:** Health Care; Drugs

52. **PEOPLE RECLAIMING THE PUBLIC HEALTH SYSTEM: COMMUNITY-BASED MONITORING AND PLANNING IN MAHARASHTRA. ABHAY SHUKLA. *Social Change* June 2013, 43(2); 311-319.

Community-based monitoring and planning (CBMP) of health services is being implemented in selected areas of Maharashtra with support from National Rural Health Mission since 2007. CBMP processes are organised at village, Primary Health Centre, block, district and state levels by a network of nodal civil society organisations working with the State health department. Key components include multistakeholder monitoring committees at various levels; community-based data collection and filling of health report cards; organising public hearings and periodic state level dialogues, with community-based planning focused on appropriate utilisation of untied funds. Various indicators show positive impact of these processes in CBMP areas such as significant rise in positive ratings of public health services over time, increase in utilisation of PHC services in Thane district and numerous positive ‘stories of change’. However, key policy decisions are now required to ensure optimal effectiveness, generalisation and sustainability of such community action processes.

**Keywords:** Public health system; Health monitoring; Maharashtra

It is the obligation of the state to provide free and universal access to quality health-care services to its citizens. India continues to be among the countries of the world that have a high burden of diseases. The various health program and policies in the past have not been able to achieve the desired goals and objectives. 65th World Health Assembly in Geneva identified universal health coverage (UHC) as the key imperative for all countries to consolidate the public health advances. Accordingly, Planning Commission of India constituted a high level expert group (HLEG) on UHC in October 2010. HLEG submitted its report in Nov 2011 to Planning Commission on UHC for India by 2022. The recommendations for the provision of UHC pertain to the critical areas such as health financing, health infrastructure, health services norms, skilled human resources, access to medicines and vaccines, management and institutional reforms, and community participation. India faces enormous challenges to achieve UHC by 2022 such as high disease prevalence, issues of gender equality, unregulated and fragmented health-care delivery system, non-availability of adequate skilled human resource, vast social determinants of health, inadequate finances, lack of inter-sectoral co-ordination and various political pull and push of different forces, and interests. These challenges can be met by a paradigm shift in health policies and programs in favor of vulnerable population groups, restructuring of public health cadres, reorientation of undergraduate medical education, more emphasis on public health research, and extensive education campaigns. There are still areas of concern in fulfilling the objectives of achieving UHC by 2022 regarding financing model for health-care delivery, entitlement package, cost of health-care interventions and declining state budgets. However, the Government's commitment to provide adequate finances, recent bold social policy initiatives and enactments such as food security bill, enhanced participation by civil society in all health matters, major initiative by some states such as Tamil Nadu to improve health, water, and sanitation services are good enough reasons for hope that UHC can be achieved by 2022. However, in the absence of sustained financial support, strong political will and leadership, dedicated involvement of all stakeholders and community participation, attainment of UHC by 2022 will remain a Utopia.

Keywords: Public health; India


Myopia, a form of refractive error is a leading cause of visual disability throughout the world. In India uncorrected refractive errors are the most common cause of visual impairment and second major cause of avoidable blindness. Due to this the public health and economic impact of myopia is enormous. Although school vision screening programme is very successful in many states, still a significant number of school going children remain unidentified and the unmet need for correcting refractive errors in children appears to be significant.

Keywords: Public health; India’ Assam
55. **ROAD TRAFFIC ACCIDENT: AN EMERGING PUBLIC HEALTH PROBLEM IN ASSAM.**

PRANAB JYOTI BHUYAN, FARUQUDDIN AHMED. *Indian Journal of Community Medicine*. Vol. 38(2) 100.

In the northern states, there is hardly any scientific study except road traffic accidents (RTAs) statistics obtained by the Ministry of Home whereas the main way of transportation is by road. There is the increasing load of motor vehicles on the already dilapidated roadways which has resulted in the increasing trend of RTAs in Assam. To find out the prevalence, probable epidemiological factors and morbidity and mortality pattern due to RTAs in Dibrugarh district. Descriptive study was carried out in Dibrugarh district from September 1998 to August 1999 under the department of Community Medicine. The information was collected from Assam Medical College and Hospital and cross checked with the police report. A medical investigation including interview, clinical and radiological investigation was carried out; in case of fatality, post-mortem examination was examined in details. An on the spot investigation was carried out in accessible RTAs to collect the probable epidemiological factors. RTAs affected mainly the people of productive age group which were predominantly male. Majority of the RTAs were single vehicle accidents and half of the victims were passengers. Accident rate was maximum in twilight and winter season demanding high morbidity and mortality. Head and neck, U.limb and L.limb were commonly involved. RTAs is a major public health problem in Assam which needs more scientific study.


Background: Cancer of the uterine cervix is the most common malignancy amongst women in India. Identification of its pre-cancerous lesions and prevention by HPV vaccine may go a long way in decreasing the incidence. Aim: The aim was to study the awareness about the various aspects of the HPV infection and vaccine among medical students. Settings and Design: It was a cross-sectional study conducted in a tertiary care hospital of Delhi. Materials and Methods: 150 medical students aged between 18-25 years were requested to complete a 35 point questionnaire regarding cervical malignancy, HPV infection, HPV vaccine and the answers were then analyzed. Results: None of the students knew the correct incidence of cervical cancer in India and 18% of them did not know that the HPV vaccination prevents cervical cancer and 50% thought that vaccination induces false sense of security. Fifty percent were unaware of HPV infection and its association with other STD's and cervical cancer. The information regarding the mechanism of action, dosage, schedule and cost of the HPV vaccine was lacking in majority of them. The limitation of this study is that it does not reflect the knowledge or awareness of a layman or full-fledged medical doctor. Conclusions: To conclude
gaps in knowledge regarding HPV infection and vaccination existed amongst the medical students and a more integrated teaching regarding HPV carcinogenesis, vaccination and cervical cancer needs to be introduced.

**Keywords:** Papilloma; Vaccine

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57. **SERVICE QUALITY, CUSTOMER (PATIENT) SATISFACTION AND BEHAVIOURAL INTENTION IN HEALTH CARE SERVICES: EXPLORING THE INDIAN PERSPECTIVE.**

ARJUN MURTI, AASHISH DESHPANDE, AND NAMITA SRIVASTAVA. *Journal of Health Management* March 2013 15: 29-44,

As the health care sector in India gets more competitive, health care practitioners and academic researchers are increasingly interested in exploring how patients perceive the quality before building up their satisfaction levels and generating behavioural intentions. Hospitals today are increasingly realizing the need to focus on service quality as a measure to improve their competitive position. Customer based determinants and perceptions of service quality, therefore, play an important role when choosing a hospital. In this paper, we examine and measure the quality of services and its outcomes (patient's satisfaction and behavioural intentions) provided by hospitals. In this regard, a review of literature on measuring service quality, patient satisfaction and behavioural intentions in health care scenario has been considered to investigate the direct influence of service quality on behavioural intentions and the mediating role of customer satisfaction on influencing behavioural intentions. The study focuses only on health care services offered by hospitals. Till today, few studies in the developing nations were conducted to understand the types of relationship that exists between three key constructs—service quality, patient satisfaction and behavioural intentions. Majority of the studies have been done in the developed country context, which cannot be generalized in the Indian context. It has been contended that constructs of service quality that are developed in one culture might not be applicable in another culture. This study analyses the suitability of service quality to improve customer satisfaction and in the process positively impacting behavioural intentions in the health care setting.

**Keywords:** Papilloma; Vaccine

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58. **BUILDING INSTITUTIONS FOR HEALTH AND HEALTH SYSTEMS IN CONTEXTS OF RAPID CHANGE.**


Many Asian countries are in the midst of multiple interconnected social, economic, demographic, technological, institutional and environmental transitions. These changes are having important impacts on health and well-being and on the capacity of health systems to respond to health-related problems. This paper focuses on the creation of institutions to overcome information asymmetry and encourage the provision of safe, effective and affordable health services in this context of complexity and rapid change. It presents a review of literature on different approaches to the
analysis of the management of system development and institution-building. There is a general agreement that the outcome of an intervention depends a great deal on the way that a large number of agents respond. Their response is influenced by the institutional arrangements that mediate relationships between health sector actors and also by their understandings and expectations of how other actors will respond. The impact of a policy or specific intervention is difficult to predict and there is a substantial risk of unintended outcomes. This creates the need for an iterative learning approach in which widespread experimentation is encouraged, good and bad experiences are evaluated and policies are formulated on the basis of the lessons learned. This enables actors to learn their roles and responsibilities and the appropriate responses to new incentive structures. The paper concludes with an outline of the information needs of managers of health system change in societies in the midst of rapid development. Much of Asia is experiencing rapid changes which are enabling people to escape poverty but is exposing them to risks. An effective health system can mitigate risks associated with rapid change. Many health sectors increasingly resemble a complex adaptive system. Health can learn strategies from other sectors on how to create resilient institutions in dynamic and complex contexts. Research agendas should take into account the information needs of those responsible for managing complex health systems.

**Keywords**: Health systems; Institutional development; Change management; Complex adaptive systems


This paper attempts to conduct a comparative study between Government and Private Hospitals in Kolkata Municipal Corporation. Four Government hospitals and four private hospitals are selected and along with the secondary data, some primary data are collected by interviewing 100 patients to reveal the differences on the basis of infrastructural facilities, treatment, workload, utilization and pricing of hospitals’ services and also to offer suggestions to make overall service quality in private and government hospitals more effective and efficient. The major finding suggests that the overall healthcare facilities are better in the private hospitals. These disparities are created mainly by the overburden of patients, low infrastructural development and lethargy of the staff in the government hospitals. In spite of that, this study reveals that the government hospitals still act as a pillar of hope for the poor and middle-class people, who cannot bear the high cost of the treatment in the private hospitals.

**Keywords**: Comparative study, healthcare facilities, infrastructural facilities, high cost of the treatment

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8. **Health Economics**


This paper examines the relationship between country health spending and selected health outcomes (infant mortality and child mortality), using data from 133 low and middle-income countries for the years 1995, 2000, 2005, and 2006. Health spending has a significant effect on reducing infant and under-5 child mortality with an elasticity of 0.13 to 0.33 for infant mortality and 0.15 to 0.38 for under-5 child mortality in models estimated using fixed effects methods (depending on models employed). Government health spending also has a significant effect on reducing infant and child mortality and the size of the coefficient depends on the level of good governance achieved by the country, indicating that good governance increases the effectiveness of health spending. This paper contributes to the new evidence pointing to the importance of investing in health care services and the importance of governance in improving health outcomes.

**Key Words**: Health expenditure, Health outcomes, Good governance


This article examines impoverishment effect of the out-of-pocket (OOP) payment for health care on households in India where only 10 per cent of the population is covered by insurance. At the national level, 10.1 per cent of rural households as against 6.2 per cent of urban households have either become poor or poorer as a consequence of OOP for health care. The proportion of rural impoverished households due to OOP health expenditure in the four most underdeveloped states of Orissa, Bihar, Uttar Pradesh and Madhya Pradesh are 11.4, 9.5, 7.9 and 7.3 per cents, respectively. The corresponding proportion of urban impoverished households for these states are 7.2, 7.5, 5.9 and 5.1 per cents, respectively. It is also found that the OOP payment tends to increase significantly with inequality in income distribution and shortage of physicians at the state level. Health system inadequacy measure by population density per physician has escalating effect on impoverishment.

**Key Words**: Health expenditure, India, Health economics

Managed care substantially transformed the U.S. healthcare sector in the last two decades of the twentieth century, injecting price competition among hospitals for the first time in history. However, total HMO enrollment has declined since 2000. This study addresses whether managed care and hospital competition continued to show positive effects on hospital cost and quality performance in the “post-managed care era.” Using data for 1,521 urban hospitals drawn from the Healthcare Cost and Utilization Project, we examined hospital cost per stay and mortality rate in relation to HMO penetration and hospital competition between 2001 and 2005, controlling for patient, hospital, and other market characteristics. Regression analyses were employed to examine both cross-sectional and longitudinal variation in hospital performance. We found that in markets with high HMO penetration, increase in hospital competition over time was associated with decrease in mortality but no change in cost. In markets without high HMO penetration, increase in hospital competition was associated with increase in cost but no change in mortality. Overall, hospitals in high HMO penetration markets consistently showed lower average costs, and hospitals in markets with high hospital competition consistently showed lower mortality rates. Hospitals in markets with high HMO penetration also showed lower mortality rates in 2005 with no such difference found in 2001. Our findings suggest that while managed care may have lost its strength in slowing hospital cost growth, differences in average hospital cost associated with different levels of HMO penetration across markets still persist. Furthermore, these health plans appear to put quality of care on a higher priority than before.

**Key Words**: Hospital cost, Hospital services, Hospital management


Despite the remarkable progress in expanding the coverage of social protection mechanisms in health, the Tunisian healthcare system is still largely funded through direct out-of-pocket payments. This paper seeks to assess financial protection in health in the particular policy and epidemiological transition of Tunisia using nationally representative survey data on healthcare expenditure, utilization and morbidity. The extent to which the healthcare system protects people against the financial repercussions of ill-health is assessed using the *catastrophic* and *impoverishing* payment approaches. The characteristics associated with the likelihood of vulnerability to catastrophic health expenditure (CHE) are examined using multivariate logistic regression technique. Results revealed that non-negligible proportions of the Tunisian population (ranging from 4.5 % at the conservative 40 % threshold of discretionary nonfood expenditure to 12 % at the 10 % threshold of total expenditure) incurred CHE. In terms of impoverishment, results showed that health expenditure can be held responsible for about 18 % of the rise in the poverty gap. These results appeared to be relatively higher when compared with those obtained for other countries with similar level of development. Nonetheless, although households belonging to richer quintiles reported more illness episodes and
received more treatment than the poor households, the latter households were more likely to incur CHE at any threshold. Amongst the correlates of CHE, health insurance coverage was significantly related to CHE regardless of the threshold used. Some implications and policy recommendations, which might also be useful for other similar countries, are advanced to enhance the financial protection capacity of the Tunisian healthcare system.

64. **RESPONDING TO FINANCIAL PRESSURES. THE EFFECT OF MANAGED CARE ON HOSPITALS’ PROVISION OF CHARITY CARE. NÚRIA MAS.**


Healthcare financing and insurance is changing everywhere. We want to understand the impact that financial pressures can have for the uninsured in advanced economies. To do so we focus on analyzing the effect of the introduction in the US of managed care and the big rise in financial pressures that it implied. Traditionally, in the US safety net hospitals have financed their provision of unfunded care through a complex system of cross-subsidies. Our hypothesis is that financial pressures undermine the ability of a hospital to cross-subsidize and challenges their survival. We focus on the impact of price pressures and cost-controlling mechanisms imposed by managed care. We find that financial pressures imposed by managed care disproportionately affect the closure of safety net hospitals. Moreover, amongst those hospitals that remain open, in areas where managed care penetration increases the most, they react by closing the health services most commonly used by the uninsured.

**Key Words:** Quality care, Health care


The financial crisis that manifested itself in late 2007 resulted in a Europe-wide economic crisis by 2009. As the economic climate worsened, Governments and households were put under increased strain and more focus was placed on prioritising expenditures. Across European countries and their heterogeneous health care systems, this paper examines the initial responsiveness of health expenditures to the crisis and whether recession severity can be considered a predictor of health expenditure growth. In measuring severity we move away from solely gross domestic product (GDP) as a metric and construct a recession severity index predicated on a number of key macroeconomic indicators. We then regress this index on measures of total, public and private health expenditure to identify potential relationships. Analysis suggests that for 2009, the Baltic States, along with Ireland, Italy and Greece, experienced
comparatively severe recessions. We find, overall, an initial counter-cyclical response in health spending (both public and private) across countries. However, our analysis finds evidence of a negative relationship between recession severity and changes in certain health expenditures. As a predictor of health expenditure growth in 2009, the derived index is an improvement over GDP change alone.

**Key Words:** Health expenditure, Health care

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Empirics of catastrophic healthcare expenditure, especially in the Indian context, are often based on consumption expenditure data that inadequately informs about the ability to pay. Use of such data can generate a pro-rich bias in the estimation of catastrophic expenditure thereby suggesting greater concentration of such expenditures among richer households. To improve upon the existing approach, this paper suggests a multidimensional approach to comprehend the incidence of catastrophic expenditure. Here, we integrate the information on health expenditure with other social and economic parameters of deprivation. An empirical illustration is provided by using nationally representative survey on morbidity and healthcare in India. The results of the multidimensional approach are consistent with the theoretical underpinnings of the ability-to-pay approach and emphasizes on the severity of the problem in rural areas. The suggested methodology is flexible and allows for context-specific prioritization in selection of parameters of vulnerability while estimating the incidence of catastrophic expenditures.

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This article examines impoverishment effect of the out-of-pocket (OOP) payment for health care on households in India where only 10 per cent of the population is covered by insurance. At the national level, 10.1 per cent of rural households as against 6.2 per cent of urban households have either become poor or poorer as a consequence of OOP for health care. The proportion of rural impoverished households due to OOP health expenditure in the four most underdeveloped states of Orissa, Bihar, Uttar Pradesh and Madhya Pradesh are 11.4, 9.5, 7.9 and 7.3 per cents, respectively. The corresponding proportion of urban impoverished households for these states are 7.2, 7.5, 5.9 and
5.1 per cents, respectively. It is also found that the OOP payment tends to increase significantly with inequality in income distribution and shortage of physicians at the state level. Health system inadequacy measure by population density per physician has escalating effect on impoverishment.

**Key Words**: Health Expenditure, India, Health care services


In 2010, nearly 37 lakh Indians have been estimated to be suffering from dementia. Estimated costs of care in published literature do not reflect the actual expenses of individual households. Hence, a household budget approach was undertaken to arrive at the costs of dementia care in India. Study identified and listed the different components of care, classified the applicability of care for the different components with respect to mild, moderate, and severe cases. This framework was utilized to assign costs of care and arrive at the household costs of care for a Person with Dementia (PwD) in both urban and rural areas. The total expense was similar to that reported by individual households. The annual household cost of caring for a person with dementia in India, depending on the severity of the disease, ranged between INR 45,600 to INR 2,02,450 in urban areas and INR 20,300 to INR 66,025 in rural areas. Costs increased with increasing severity of the disease process. The costs of informal care contributed to nearly half of the total costs either in rural or urban area. With increasing severity, proportion of medical costs decreased while social cost increased. Medical costs in rural areas were nearly one-third of the total costs as against less than one-fifth in urban areas. The household budget model realistically estimated the household costs of care. It is hoped that the comprehensive and generic framework would prompt health professionals, researchers, and policy makers in India to catalyze geriatric health services, particularly for care for PwD.

**Key Words**: Alzheimer's dementia, Costs of care, Dementia, Economic analyses,


Using the unit data from 61st and 66th rounds of consumption expenditure surveys carried out by National Sample Survey Organisation, this paper examines the change in household health spending of demographically advanced and transitive states of India. Descriptive and multivariate analyses are used to understand the differentials and change in health spending. Results suggest that during 2004-2010 the household health expenditure at constant prices has increased by 25 per cent in India. 32 per cent in Kerala, 33 per cent in Maharashtra and eight per cent in Uttar Pradesh. The institutional health spending in India has increased by 53 per cent compared with 15 percent for non-institutional
health spending. The increase in household health spending is elderly is higher among the poor, less educated, labourer households and among elderly households. Results of multivariate analyses suggest that households with elderly members are more likely to incur catastrophic health expenditure compared with households without any elderly member. Based on the findings, the paper suggests an increase in public spending on health to protect the poor, marginalised and elderly households from catastrophic health spending.

Keywords: Health expenditure, Household health, Public health, India


In the present study an attempt is made to compare the attitude of insurers and non-insurers towards health insurance. A total of 401 respondents (200 insured and 201 non-insured) were selected for the study through random sampling technique. They were administered a structures questionnaire on attitude towards health insurance by the authors. The data collection was done in and around the city of Mysore. Data were subjected to contingency coefficient analysis to find out the association between respondent groups and their responses. Results revealed that on the whole we find that insurers had favorable attitude towards health insurance than non-insurers. In individual areas like availability, time spent, expenditure and treatment issues also those with health insurance were more favorable compared to non-insurers. Lastly, importance of health insurance in Indian context has been delineated.

Key words: Health; Insurance; Mysore; Attitude

9. HOSPITAL MANAGEMENT


The present study considers the Italian healthcare system, investigating the aspects that might affect the efficiency of Italian hospitals. The authors analyze what influences a specific definition of efficiency, which is calculated maximizing healthcare production but minimizing potential financial losses. In other words, this work considers efficient each hospital which is able to maximize the production of medical treatments while complying, at the same time, with budget
constraints. Hence, the results of this paper are twofold: from the organizational point of view, they underline the need for rebalancing the various administrative levels of hospitals; from the technical point of view, a more coherent model is proposed in order.

**Keywords** Hospital efficiency . Directional distance function (DDF) Hierarchical organization . Healthcare management.


The Critical Access Hospital (CAH) Program has offered Medicare cost-based reimbursement to small hospitals that meet certain eligibility criteria to improve their financial viability and quality of care. However, cost-based reimbursement has been associated with inefficiency in hospital operations. This study uses a two-stage approach and bootstrap procedures to examine the effects of environmental variables on the technical efficiency of CAHs. The two-stage approach with quality controls significantly improved statistical efficiency of parameter estimates in the second stage bootstrapped truncated regression relative to a similar model without quality controls. Overall, our results suggest that enhanced Medicare reimbursement may not have had detrimental effects on the technical efficiency of CAHs.

**Keywords** Critical Access Hospitals . Two-stage approach . Technical efficiency . Bootstrap


Nowadays the ability to provide outpatient services with exceptional quality is paramount to long-term survival of hospitals, as the revenues from outpatient services are predicted to equal or exceed inpatient revenues in the near future. Identifying the relative weight of different dimensions of healthcare quality service which concur together to determine outpatients satisfaction is very important, as it can help healthcare managers to allocate resources more efficiently and identify managerial actions able to guarantee higher levels of patients’ satisfaction. This study proposes the use of Artificial Neural Network (ANN) as a knowledge discovery technique for identifying the service quality factors
that are important to outpatient. An ANN model is developed on data from a panel of outpatients of public healthcare services.

**Keywords** Service quality. Outpatients satisfaction. Artificial neural network


In a hospital environment that demands a careful balance between commercial and clinical interests, the extent to which physicians are involved in hospital leadership varies greatly. This paper assesses the influence of the extent of this involvement on staff-to-patient ratios. Using data gathered from 604 hospitals across Germany, this study evidences the positive relationship between a full-time medical director (MD) or heavily involved part-time MD and a higher staff-to-patient ratio. The data allows us to control for a range of confounding variables, such as size, rural/urban location, ownership structure, and case-mix. The results contribute to the sparse body of empirical research on the effect of clinical leadership on organizational outcomes.

**Keywords** Physician · Leadership · Hospital Medical staff.


To forecast the bed requirements for a Burns Ward. The existing database of hospital admissions and in-patients was analyzed to plan the bed strength for the Burns Ward ICU and Step-down area. We calculated the mean, the median and the mode and studied the pattern of bed occupancy. Utilizing this data, the bed requirement with the gender mix and adult-paediatric patient complement was derived. The average admission rate for Burns was 15.33 patients per month. In the ICU, the daily mean and the median/mode of in-patients was 2.3 and two, while for Step-down in-patients the mean and median/mode was 7.34 and seven. However, a total of 10–12 beds were occupied in the Burns treatment area for 57–30 days of the study period. Historical data of admissions and bed occupancy enable a realistic prediction of bed requirements for the day to day working of a Burns practice.
A comparative study to identify the orthopedic ailments of 1869 tribal and nontribal patients attending hospital was conducted. These subjects were registered between 12-5-2007 and 10-5-2008. Among 1869 patients, 1457 (77.94%) were tribal and the rest 412 were non-tribal. Out of 1457 tribal patients, 903 (61.96 %) were females while amongst 412 non-tribal, 203 (49.27 %) were females. Records of all sampled 1869 patients were analyzed and inferences were drawn. As far as tribal male and female are concerned, there was more proportion of tribal female exposed to injury in comparison to their male counterparts. On further analysis, it was observed that tribal males and females got most of the fractures in both extreme age groups, i.e., under 15 years of age and 65 and above age. As far as tribal and non-tribal females are concerned, it was observed that higher proportion of tribal females showed fractures of all sites except elbow and hip in comparison to their non-tribal female counterparts. Regarding males, higher proportion of non-tribal males showed fracture of elbow, hip, femur, tibia/fibula, ankle, foot, toes etc. In contrast, tribal men carried higher proportion of injuries to other bones than those mentioned above.

**Key-words** - Injury, Fracture, Pegs

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Abstract: Often not all the cases posted for elective operation are operated as scheduled. Such postponed cases are a great burden to the patients as well as hospital. The present study attempts to identify the proportion of postponed cases and the reasons for their postponement. The study was conducted at Maharani Hospital, Jagdalpur (Bastar) from 01-12-2008 to 31-05-2009. The data was collected in a preset proforma. Statistical analysis was expressed in simple terms of proportion. Thirty percent cases were postponed on the day of surgery. Causes of such postponement are lack of availability of operation theatre (59.7%), medical reasons (9.8%), change in the surgical plan (5.4%), administrative reasons (3.7%) and miscellaneous reasons (4.2%). Operation of 16.2 % cases were postponed due to delay in the arrival of patients.

**Key words**: Elective cases, Postponement

Modeling and analysis of patient flow in hospital emergency department (ED) is of significant importance. In a hospital ED, the patients spend most of their time in the patient room and most of the care delivery services are carried out during this time period. In this paper, we propose a system model to study patient (or work) flow in the patient room of an ED when the resources are partially available. A closed and re-entrant process model is developed to characterize the care service activities in the patient room with limited resources of doctors, nurses, and diagnosis tests. Analytical calculation of patient’s length of stay in the patient room is derived, and monotonic properties with respect to care service parameters are investigated.

Key-words – Hospital emergency, Patient care., Hospital management.


Research in the field of operations management and medicine analyzed how workload affects productivity and patient outcomes. However, staff quality has largely been neglected, and if staffing information has indeed been included, then it takes the form of quantitative measures like staff–to–patient ratios. We therefore seek to analyze how education and experience are directly associated with effort. How do responses to workload differ with respect to education and experience? By analyzing a single hospital unit, we are able to establish a link between staff quality and patient outcomes, allowing us to demonstrate empirically that knowledge and experience are highly relevant in staff members’ responses to increasing system load. The systematic aligning of staffing with expected system load should therefore consider not only staffing quantity but also staffing quality. Provided with a reliable prediction of system load, this knowledge would allow managers to generate savings since they can assign high-quality staff more effectively.

Key-words – Hospital emergency, Patient care., Staff quality

10. KAP SURVEYS

This article discusses the emergence of feminism in Portugal with special emphasis on the actions taken in confronting gender violence. Starting with the history of feminist movements and its implications for the development of the country, it maps public policies, legal measures and victim support institutions/services to better understand the phenomena of violence against women and to identify strategies, adopted in the last decades, to confront it. Presenting a synthesis of some Portuguese studies on women and violence, this article mirrors the increasing interest in the study of violence against women in the academic context and especially in the context of gender studies.

Keywords Portugal, feminisms, gender studies, violence against women, scientific Production


Hospital infections are one of the important factors that adversely affect the image and economy of hospitals and ICU is a hotspot of infections. A descriptive and observational study was conducted in ICUs of a Multispecialty Hospital to analyze the knowledge, awareness and practices among staff about infection control. The study was based on checklist based on Ventilator Bundles and Central Line Bundles (IHI) and WHO. Whole staff of ICU was taken as sample size. A significant gap was noticed between actual practices followed and staff know-how. More than 80 per cent of staff was aware of hand hygiene moments and hand washing steps, but less than 25 per cent actually practised it. While 86 per cent of the staff claimed to wear fresh gloves, 57 per cent (239/418 observations) wore in practice. While 68 per cent claimed to follow oral care protocol, only 44 per cent actually did it. Contrary to 67 per cent who responded that they elevate the head of a patient who requires it, 49 per cent did it. And, 57 per cent of the staff followed catheter care practices as per protocol. Lack of accountability, discipline and focus on curative aspects accounts for poor performance towards infection control practices. So, through open communication, regular trainings and self-accountability, infection control standards and patient safety can be achieved.

Key Words: Knowledge attitude, KAP surveys, Infection, ICU, Medical staff

11. MENTAL HEALTH


This study examined previous mental health service use among low-income homebound middle-aged and older adults who participated in a study testing the feasibility and efficacy of telehealth problem-solving therapy for depression. The
sample consisted of 188 homebound adults aged 50 years or older. Data on mental health service use were collected at baseline. We used multivariable logistic regression analysis to examine correlates of different types of outpatient service use within the preceding 12 months. Of the subjects, 56% reported mental health service use. Of the users, 80% had made at least one primary care mental health visit, 21% had visited a psychiatrist, and 25% had received counseling. Higher depressive symptom severity scores were positively associated with a psychiatrist visit only. The need to improve low-income homebound older adults’ access to psychotherapy was clearly evident.

**Keywords**: Mental health; Adults; Public health services

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**12. PUBLIC HEALTH**

**83. THEORY OF CONSTRAINTS FOR PUBLICLY FUNDED HEALTH SYSTEMS**


Originally developed in the context of publicly traded for-profit companies, theory of constraints (TOC) improves system performance through leveraging the constraint(s). While the theory seems to be a natural fit for resource-constrained publicly funded health systems, there is a lack of literature addressing the modifications required to adopt TOC and define the goal and performance measures. This paper develops a system dynamics representation of the classical TOC’s system-wide goal and performance measures for publicly traded for-profit companies, which forms the basis for developing a similar model for publicly funded health systems. The model is then expanded to include some of the factors that affect system performance, providing a framework to apply TOC’s process of ongoing improvement in publicly funded health systems. Future research is required to more accurately define the factors affecting system performance and populate the model with evidence-based estimates for various parameters in order to use the model to guide TOC’s process of ongoing improvement.

**Keywords** Theory of constraints . Publicly funded health systems. Goal . Performance measures . System dynamics

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**84. CLASSIFYING HIGHLY IMBALANCED ICU DATA**


Highly imbalanced data sets are those where the class of interest is rare. In this paper, we compare the performance of several common data mining methods, logistic regression, discriminant analysis, Classification and Regression Tree (CART) models, C5, and Support Vector Machines (SVM) in predicting the discharge status (alive or deceased, with “deceased” being the class of interest) of patients from an Intensive Care Unit (ICU). Using a variety of misclassification cost ratio (MCR) values and using specificity, recall, precision, the F-measure, and confusion entropy (CEN) as criteria
for evaluating each method’s performance, C5 and SVM performed better than the other methods. At a MCR of 100, C5 had the highest recall and SVM the highest specificity and lowest CEN. We also used Hand’s measure to compare the five methods. According to Hand’s measure, logistic regression performed the best. This article makes several contributions. We show how the use of MCR for analyzing imbalanced medical data significantly improves the method’s classification performance. We also found that the F-measure and precision did not improve as the MCR was increased.

**Keywords** Data mining, Imbalanced data, Misclassification cost, Hand’s measure, Intensive Care Unit (ICU)

**85. PEOPLE’S PERCEPTION TOWARDS HEALTH PROVIDERS IN RURAL PUNJAB**


Accessibility to quality health care becomes a significant factor in improving the quality of life especially in developing countries. In spite of having a good health care infrastructure, the efficiency, quality and heavy cost of health care services is very weak in rural India. In such a scenario, the study attempts to analyze the availability, reach and spread of health infrastructure in rural areas of Punjab by examining the people’s choice and the factors governing their choice in health providers. The study is based on a random sample survey done in Ramdas sub- tehsil of Amritsar district and the results indicate that in the border district of Punjab more than 76 per cent of respondents preferred private providers, even quacks due to factors like easy availability of health providers, fee charged by them, free medicines dispersed, monthly income of respondents etc. while only the very poor went to public providers.

**Keywords** Health provider, factor analysis, primary health centre, sub-centres/dispensaries, fee and availability of health provider, free medicine.

**86. THE NEED FOR EFFECTIVE MANAGEMENT IN AFRICAN HEALTH SYSTEMS. ANTHONIA ADINDU. Journal of Health Management March 2013 15: 1-13.**

Effective health management is critical at every level of African health systems in order to improve services and in turn the current poor health situation in many countries. Specialized professional training equips health-care workers for clinical services, but is limited in preparing them for the management of complex health care systems and organizations. Health management involves technical and social processes for achieving health objectives through effective and efficient use of health resources in view of social, economic, political and cultural realities. Basic functions expected of African health managers include health policy analysis and
formulation, health planning, organizing, implementing, leading, coordinating, controlling, monitoring and evaluating services. Health managers at primary, secondary and tertiary levels require additional specialist training in health management to acquire knowledge and skills needed for effective and efficient management of complex health-care organizations. This, in turn, facilitates application of tested theories, systematic approaches and best practices in addressing the health needs of the people. This article advocates effective health-care management in order to achieve the Millennium Development Goals, health goals of the New Partnership for Africa’s Development, national health goals and to promote quality in health care, equity and justice. These culminate in improving health of the people and changing the poor health indices. It also outlines, in brief, the basic functions expected of African health managers and concludes by advocating health-management training for strategic, departmental and operational managers at different levels in the health system.

**Keywords:** Health system ; Africa; Health system management.

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Rashtriya Swasthya Bima Yojana aims to improve access to quality health care and relieve the burden of health care costs of the poor population. This article, based on interviews conducted with different stakeholders of the scheme during October–December 2010, looks at the implementation of the scheme in Delhi. A large proportion of the beneficiaries were unaware about the features and benefits of the scheme. A significant proportion of the families availing benefits had incurred the out-of-pocket expenses. The coverage of population was very low. The empanelled hospitals/nursing homes were hesitant in admitting patients with chronic ailments requiring continuous treatment at the hospital. Low package rates and delay in settlement of claims were reported as the major issues by the empanelled hospitals.

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**88. HEALTH STATUS AND BEHAVIORAL RISK FACTORS IN OLDER ADULT MEXICANS AND MEXICAN IMMIGRANTS TO THE UNITED STATES. EMMA AGUILA JOSE ESCARCE, MEI LENG, , AND LEO MORALES. Journal of Aging and Health. 2013, 25(1) 136–158.**

Investigate the “salmon-bias” hypothesis, which posits that Mexicans in the U.S. return to Mexico due to poor health, as an explanation for the Hispanic health paradox in which Hispanics in the United States are healthier than might be expected from their socioeconomic status. Method: Sample includes Mexicans age 50 years or above living in the United States and Mexico from the 2003 Mexican Health and Aging Study and the 2004 Health and Retirement Study. Logistic regressions examine whether no migrants or return migrants have different odds than immigrants of reporting a health outcome. Results: The salmon-bias hypothesis holds for select health outcomes. However, no migrants and return migrants have better health outcomes than
immigrants on a variety of indicators. Discussion: Overall, the results of this study do not support the salmon-bias hypothesis; other explanations for the paradox could be explored.

**Keywords** Hispanic health, Mexico, migration

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89. **STRENGTHENING OF PRIMARY HEALTH CARE: KEY TO DELIVER INCLUSIVE HEALTH CARE.**


Inequity and poverty are the root causes of ill health. Access to quality health services on an affordable and equitable basis in many parts of the country remains an unfulfilled aspiration. Disparity in health care is interpreted as compromise in 'Right to Life.' It is imperative to define 'essential health care,' which should be made available to all citizens to facilitate inclusivity in health care. The suggested methods for this include optimal utilization of public resources and increasing public spending on health care. Capacity building through training, especially training of paramedical personnel, is proposed as an essential ingredient, to reduce cost, especially in tertiary care. Another aspect which is considered very important is improvement in delivery system of health care. Increasing the role of 'family physician' in health care delivery system will improve preventive care and reduce cost of tertiary care. These observations underlie the relevance and role of Primary health care as a key to deliver inclusive health care. The advantages of a primary health care model for health service delivery are greater access to needed services; better quality of care; a greater focus on prevention; early management of health problems; and cumulative improvements in health and lower morbidity as a result of primary health care delivery.

**Key Words :** Affordable health care, Accessible health care, Capacity Building, Health Economics, Inclusive health care, Universal health care.

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90. **CAUSES OF DEATH IN RURAL ADULT POPULATION OF NORTH INDIA (2002-2007), USING VERBAL AUTOPSY TOOL.**


With the on-going epidemiological transition, information on the pattern of mortality is important for health planning. Verbal autopsy (VA) is an established tool to ascertain the cause of death in areas where routine registration systems are incomplete or inaccurate. We estimated cause-specific mortality rates in rural adult population of 28 villages of Ballabgarh in North India using VADuring 2002-2007, trained multi-purpose health workers conducted 2294 VA interviews and underlying cause of death was coded by physicians. Proportional mortality (%) was calculated by dividing the number of deaths attributed to a specific cause by the total number of deaths for which a VA was carried out. 61% of deaths occurred among males and 59% occurred among those aged ≥60 years. The leading causes of death were diseases of the respiratory system (18.7%) and the circulatory system (18.1%). Infectious causes and injuries and other external causes, each accounted for around 15% of total deaths followed by neoplasms (6.8%) and diseases of the digestive system (4%). Among those 45 years of age, more than half of deaths were attributed to non-
communicable diseases (NCDs) alone. Accidents and injuries were responsible for one-fourth of deaths in 15-30 years age group. NCDs and injuries are emerging as major causes of death in this region thereby posing newer challenges to public health system.

**Key Words:** Adults, Cause of death, Epidemiology, Mortality, Surveillance, Verbal autopsy.

91. **GENDER-VIOLENCE AND HEALTH CARE: HOW HEALTH SYSTEM CAN STEP IN**


Gender-violence also known as domestic violence, domestic abuse, spousal abuse or intimate partner violence, can be broadly defined as a pattern of abusive behaviors by one or both partners in an intimate relationship such as marriage, dating, family, friends or cohabitation. It can manifest as physical aggression, sexual abuse, emotional abuse, intimidation, stalking and economic and food deprivation. In most countries gender violence is a crime; though scope of the domestic or gender violence act and severity of punishment varies considerably between the countries.

**Key Words:** Domestic violence, Gender violence, Health care

92. **SUICIDE AN EMERGING PUBLIC HEALTH PROBLEM: EVIDENCE FROM RURAL HARYANA, INDIA.**


Analysis of annual mortality data for year 2002-2009 of twenty eight villages in Ballabgarh block of rural Haryana was carried out to calculate suicide rates per 100,000 population. In addition, informal discussions were carried out amongst health providers to understand their perceptions regarding suicides. In a period of 8 years, out of total 4552 deaths, 163 (3.5%) deaths were attributed to suicides giving a suicide rate of 24.4/100,000 population (95% CI 24.1- 24.7). Mean years of productive life lost for males and females were estimated to be 44.4 (SD 1.1) years and 39.9 (SD 1.4) years respectively. Poisoning (41.1%) was the most common mode of suicide followed by hanging (36.8%) and burns (14.7%). Health workers also perceived suicide as major problem in the community and marital conflict was identified as major cause for suicides. There is need to address the complex issue of suicide by public-health approach at the community level.

**Keywords:** India, Public-health, Rural, Suicide rate.

93. **MANPOWER PLANNING IN PUBLIC HEALTH: WHAT DO WE NEED TO DO? (Editorial)**


It may not be out of place to begin this essay with a reflection on the historical perspective of manpower planning in public health in India. Sticking purely to the Indian context, I would like to say that Public Health emerged as an identity very recently. In the past, it was an integral part of medical care. Doctors *per se* were to look after the public health as well. Way back in 1960s, it was the responsibility of the medical officer posted at the erstwhile PHC to look after all the
health parameters in his area of functional jurisdiction and he was essentially guided by the Superintendent of the District Hospital, popularly known as Civil Surgeon in most states. The public health knowledge of the Medical Officer at PHC was the residual recall of what he had learnt in his Preventive and Social Medicine classes, which he more often chose to give less priority over clinical subjects. In practice, he learnt from his peers not how to practice public health but how to keep the bosses in good humor and paint the picture that “ALL IS WELL.” There were exceptions for sure, but exceptions are called exceptions because they stand out as minority and thus are too small in number to make any visible impact. On the other hand, crusaders of public health in higher levels of administration were the deputy directors and directors, who had been working as administrators for long time and therefore had lost touch with the public health at the grass root level on one hand and on the other hand bureaucratic paper work kept them glued to the office more often and ironically holding academic qualifications as surgeon, ophthalmologist, gynecologist, or internist. As a result public health lagged behind and it received a knee jerk reaction every time there was an outbreak or an epidemic. Later on guided by the World Health Organization and similar global bodies of the United Nations which were essentially lead by public health specialists taught, trained and groomed in developed nations, to advocate policies that failed to match the need of the developing nations. It is not that the intentions were wrong but it is simply because their ground realities of the third world countries were different.

Keywords: Mnapower planning, Public Health

94. STRENGTHENING OF PRIMARY HEALTH CARE: KEY TO DELIVER INCLUSIVE HEALTH CARE. RAJIV YERAVDEKAR¹, VIDYA RAJIV YERAVDEKAR², MA TUTAKNE. Indian Journal Of Public Health.: 2013 | Volume : 57 | Issue : 2 ; 59-64

Inequity and poverty are the root causes of ill health. Access to quality health services on an affordable and equitable basis in many parts of the country remains an unfulfilled aspiration. Disparity in health care is interpreted as compromise in 'Right to Life.' It is imperative to define 'essential health care,' which should be made available to all citizens to facilitate inclusivity in health care. The suggested methods for this include optimal utilization of public resources and increasing public spending on health care. Capacity building through training, especially training of paramedical personnel, is proposed as an essential ingredient, to reduce cost, especially in tertiary care. Another aspect which is considered very important is improvement in delivery system of health care. Increasing the role of 'family physician' in health care delivery system will improve preventive care and reduce cost of tertiary care. These observations underline the relevance and role of Primary health care as a key to deliver inclusive health care. The advantages of a primary health care model for health service delivery are greater access to needed services; better quality of care; a greater focus on prevention; early management of health problems; and cumulative improvements in health and lower morbidity as a result of primary health care delivery.

Keywords: Affordable health care, Accessible health care, Capacity Building, Health Economics, Inclusive health care, Universal health care

95. REGIONAL MORBIDITY PATTERN IN INDIA: ANALYSIS BASED ON NSS 60TH ROUND (2004).

This paper aims to explore the regional disparities in the prevalence of reported morbidity in India. Using data on morbidity from the 60th round of National Sample Survey (NSS), 2004. The study calculated prevalence of individual diseases and major diseases and major disease groups for India and six broad regions, considerable regional heterogeneity both in the morbidity profile and its level. South and west regions have predominance of non-communicable diseases and functional limitations. While north and north-east regions show higher prevalence of communicable disease. The results also point to the double burden of disease with remarkable prevalence of communicable diseases and relatively higher prevalence of non-communicable disease. Particularly among the elderly across the regions.

Keywords: Morbidity; India; Public health; NSS; Health Care


The dynamics of informal health markets in marginalised regions are relevant to policy discourse in India, but are poorly understood. We examine how informal health markets operate from the viewpoint of informal providers (those without any government-recognised medical degrees, otherwise known as RMPs) by drawing upon data from a household survey in 2002, a provider census in 2004 and ongoing field observations from a research site in Koppal district, Karnataka, India. We find that despite their illegality, RMPs depend on government and private providers for their training and referral networks. Buffeted by unregulated market pressures, RMPs are driven to provide allopathic commodities regardless of need, but can also be circumspect in their practice. Though motivated by profit, their socially embedded practice at community level at times undermines their ability to ensure payment of fees for their services. In addition, RMPs feel that communities can threaten them via violence or malicious rumours, leading them to seek political favour and social protection from village elites and elected representatives. RMPs operate within negotiated quid pro quo bargains that lead to tenuous reciprocity or fragile trust between them and the communities in which they practise. In the context of this ‘unfree’ market, some RMPs reported being more embedded in health systems, more responsive to communities and more vulnerable to unregulated market pressures than others. Understanding the heterogeneity, nuanced motivations and the embedded social relations that mark informal providers in the health systems, markets and communities they work in, is critical for health system reforms.

Keywords: Informal providers; Health markets; Regulation; Private sector; Social relations; Trust; Accountability; India

13. STATUS OF WOMEN

What is the evidentiary value accorded to a woman’s testimony in a rape trial, when she is disabled? How is her testimony—conveyed non-verbally and made accessible to the judges through an interpreter—processed by a legal culture that values descriptive precision and intelligibility? How does ‘intelligibility’ itself act as a sieve through which the testimony of the disabled prosecutrix is passed to determine if the allegation of rape is proved beyond reasonable doubt? By examining judicial decisions of Indian courts in cases of rape of disabled women, this article attempts to explore these questions and shows how the testimony of the disabled prosecutrix is devalued and disregarded through a combination of evidentiary, doctrinal and ideological practices inscribed in law.

**Keywords** Disabled women, testimony, rape trial, intelligibility, legal process

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98. **RISING WOMEN’S STATUS, MODERNISATION AND PERSISTING SON PREFERENCE IN CHINA**

**WANG XIAOLEI LI LU ZHOU XU DONG ZHOU CHI LIU WEI ZHENG WEI JUN**


Evidence from many countries shows that as societies modernise and women’s status rises, son preference declines. Yet in China the sex ratio at birth has been the highest in the world for over two decades despite rapid modernisation, urbanisation and huge improvements in women’s status. This study explored this apparent contradiction through interviews with 212 men and women in urban and rural areas of Zhejiang, Guizhou and Yunnan provinces. Results showed that women’s status is perceived as high across a range of factors, including educational attainment and opportunity, labour participation and roles at home and the workplace. The majority of interviewees expressed gender indifference and had clear views about why the sex ratio is persistently high in China. High sex ratios persist probably because, while the majority is essentially gender indifferent, it takes only a small minority undergoing selective abortion to skew the sex ratio.

**Keywords** China, education, gender role, marriage, son preference, women’s status, sex ratio

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14. **Sustainable Development**
The values that people hold are the most important factor in deciding whether they endorse sustainable development. At the same time value orientations are likely to change over long time periods. International long-term research conducted by Ronald Inglehart in the second half of the twentieth century tried to capture the shift from material to post-material values. With respect to a sustainable lifestyle the research revealed a problem: there is a relationship between post-materialistic attitudes and the level of GDP. What can be done to preserve the quality of the environment and at the same time allow countries to develop economically? Czech environmentalist Josef Vavroušek defined a framework of key values that are typical for an industrial society. He assigned alternative values to them that should be compatible with sustainable living. The values of Euro-American culture and civilization stem from the heritage of Judaism and Christianity, which find fundamental ethical importance in the Ten Commandments. Modern times, however, bring new challenges and it is not easy to distinguish between what is good (or what is still acceptable) and what is not; for example, genetic engineering, experiments on humans, polluting the environment and lives in excessive wealth.

**Keywords:** Human values; Sustainable development

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**15. WOMEN’S HEALTH**

**100. WEIGHT GAIN AMONG ELDERLY WOMEN AS RISK FACTOR FOR DISABILITY: HEALTH, WELL-BEING AND AGING STUDY (SABE STUDY) LIGIANA PIRES CORONA, DANIELLA PIRES NUNES, TIAGO DA SILVA ALEXANDRE, JAIR LÍCIO FERREIRA SANTOS, YEDA Aparecida de Oliveira Duarte, AND MARIA LÚCIA LEBRÃO. Journal Of Aging And Health. 2013, 25(1) 119–135.**

To examine the association between weight change and the incidence of disability in activities of daily living (ADL) among elderly women. Method: In 2006, 227 women aged ≥75 years and independent in ADL were selected from SABE Study (Health, Well-being, and Aging) in Sao Paulo, Brazil. The dependent variable was the report of difficulty on ≥1 ADL in 2009. Differences in weight were calculated between baseline and second interview, and converted to percentage change in relation to initial weight. A change (gain or loss) ≥5% was considered significant. A logistic regression analysis was performed including socio demographic and health-related variables. Results: After adjusting, weight gain remained associated to disability (OR = 2.42; p = .027), whereas weigh loss lost significance (OR = 1.66; p = .384). Discussion: Weight loss is generally considered more worrisome than weight gain in elderly. However, weight loss alone was not a risk factor for disability in our study.

Many different definitions of the construct of motivational ambivalence have appeared in the literature on reproductive health. Using a theoretical framework in which motivational ambivalence is defined as an interaction between positive and negative pregnancy desires, we propose two hypotheses. The first is that positive and negative pregnancy desires independently predict the risk of an unplanned pregnancy. The second is that ambivalence and three related constructs that are also based on the interaction between positive and negative desires are each important predictors of pregnancy risk. We use weekly journal data collected from a US sample of 1,003 women aged 18-19 years and conduct hazard model analysis to test our hypotheses. Using both dummy and continuous predictors, we report results that confirm both hypotheses. The proposed interaction framework has demonstrated validity, compares favourably with previously reported alternative approaches, and incorporates a set of constructs that have potential importance for further research directed at the prevention of unplanned pregnancy.

Keywords: positive pregnancy desires; negative pregnancy desires; ambivalent motivation; indifferent motivation; pronatal motivation; antinatal motivation; pregnancy risk; unplanned pregnancy; adolescent pregnancy


The human body is a wonderful machine. The future of child birth in the form of test tube babies, surrogate motherhood through new reproductive and cloning technology will introduce undreamt of possibilities in the sexual arena. Surrogacy is a method of assisted reproduction whereby a woman agrees to become pregnant for the purpose of gestating and giving birth to a child for others to raise. In some jurisdictions the possibility of surrogacy has been allowed and the intended parents may be recognized as the legal parents from birth. Commercial surrogacy, or "Womb for rent", is a growing business in India. In our rapidly globalizing world, the growth of reproductive tourism is a fairly recent phenomenon. Surrogacy business is exploiting poor women in country like India already having with an alarmingly high maternal death rate. This paper talks about paternity issues and women's right to health in context of surrogacy. Government must seriously consider enacting a law to regulate surrogacy in India in order to protect and guide couples going in for such an option. Without a foolproof legal framework, patients will invariably be misled and the surrogates exploited.

Dynamic theories of family size preferences posit that they are not a fixed and stable goal but rather are akin to a moving target that changes within individuals over time. Nonetheless, in high-fertility contexts, changes in family size preferences tend to be attributed to low construct validity and measurement error instead of genuine revisions in preferences. To address the appropriateness of this incongruity, the present study examines evidence for the sequential model of fertility among a sample of young Malawian women living in a context of transitioning fertility. Using eight waves of closely spaced data and fixed-effects models, we find that these women frequently change their reported family size preferences and that these changes are often associated with changes in their relationship and reproductive circumstances. The predictability of change gives credence to the argument that ideal family size is a meaningful construct, even in this higher-fertility setting. Changes are not equally predictable across all women, however, and gamma regression results demonstrate that women for whom reproduction is a more distant goal change their fertility preferences in less-predictable ways.

Key Words: Family size, Women’s health, Fertility


The experience of pregnancy is currently driven by the development of surveillance medicine focused on the monitoring of a wide range of risks. Research usually relies on binary categories opposing women accepting medical surveillance to those resisting it. Recent studies have however underlined the complexity of women’s experiences, as well as the ambivalence of their attitudes toward medical procedures and recommendations. Based on 47 qualitative semi-structured interviews conducted in Switzerland between 2008 and 2009, this paper presents the diversity of pregnant women’s experiences of surveillance medicine through the description of four contrasting groups: “endorsing surveillance medicine”, “coping with risks”, “striving for certainty” and “questioning surveillance medicine”. Taking into account various risks related to pregnancy, these empirically-grounded groups are discussed in relation to the cultural dynamics of contemporary risk discourses.
Keywords: Switzerland; Pregnancy; Risk; Surveillance medicine; Women's experiences; Typology


Approximately 120 million fecund women in the world are not using contraception. Almost half of women in low prevalence countries lack knowledge about contraceptives or have religious reservations about using them, while in countries of high contraceptive prevalence, health concerns are the major reason for non-use, followed by infrequent sex, and lack of knowledge. A study by Torres and Singh among the U.S population of Hispanic origin revealed that the Hispanic women of adolescent groups were least likely to use a contraceptive method at their first intercourse.

Keywords: Contraception; Women-Rural; EAG; India