**Dental Health**

A number of databases were searched electronically for studies of dental research undertaken in prisons (Medline 1996 to July 2006, EMBase 1980 to 2006, Medline in Process to July 2006, CINAHL 1982 to July 2006 and SSCI 1956 to present). This process was supplemented by hand searching of references. Only papers published during or after 1990 were included. 125 papers met an initial search criteria, of which 17 provided high-quality information related to dental health research in prisons.

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<tr>
<th>Author</th>
<th>Abstract</th>
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<td>Anderson, B. and J. A. Farrow (1998). &quot;Incarcerated adolescents in Washington state. Health services and utilization.&quot; Journal of Adolescent Health 22(5): 363-7.</td>
<td>This study describes the health services for incarcerated adolescents in Washington State and their utilization, in 12 juvenile detention facilities statewide, including six state (long-term, postadjudication) and six county (short-term, preadjudication) facilities. Findings differed by facility type, with youth at county facilities having more total visits to emergency rooms and more health care visits per inmate for health problems presenting acutely, such as sexually transmitted disease, pregnancy, urologic problems, and trauma. More were on suicide watch and on psychiatric medication. Health care used by youth at state facilities tended to be for more chronic conditions such as dental, dermatologic, nutritional, and respiratory problems. When utilization was analyzed by size of facility, small facilities had fewer health care visits and fewer nursing hours per inmate. According to our findings, there are at least 14 pregnant adolescents and 2 HIV-infected adolescents incarcerated in this state at any time.</td>
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<td>Badner, V. (1994). &quot;Oral Health Status Among Women Inmates at Rikers Island Correctional Facility.&quot; Journal of Correctional Health Care 1(1): 55-72.</td>
<td>This study investigated the oral health status [Decayed (D), Missing (M), and Filled (F) teeth (DMF)]and dental experience of women detained by the New York City (N.Y.C.) Department of Corrections at Riker's Island Correctional Facility. The population (183) was 27.6 ± 5.8 years old and primarily black. The mean DMFT was 9.9, the percent D/DFT was 34.3, and percent M/DMFT was 27.4. Almost one third of the detainees complained of oral pain. Only 41.1 and 67.9 percent had dental treatment within 12 and 24 months respectively. One third of the last treatments were for tooth extraction. The DMFT, percent D/DFT, percent M/DMFT, time between appointments, need for emergency care and utilization of extractions all indicated that New York female detainees have a large amount of unmet dental need, a past dental history consisting of emergency dental care, and limited utilization of preventive and restorative dental services. Thus, there is obvious need for correctional facilities to provide access to dental treatment for women detainees with oral pain and major oral needs, and to ensure that inmates receive appropriate dental services in a timely fashion.</td>
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<td>Becart, A., V. Hedouin, et al. (1997).</td>
<td>The oral health status of drug addicts. A prison survey in Lille, France.</td>
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<td>Bolin, K. and D. Jones (2006).</td>
<td>Oral health needs of adolescents in a juvenile detention facility.</td>
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<td>Boyer, E. M., N. J. Nielsen-Thompson, et al. (2002).</td>
<td>A comparison of dental caries and tooth loss for Iowa prisoners with other prison populations and dentate U.S. adults.</td>
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untreated decay but similar numbers of missing teeth. CONCLUSIONS: Newly admitted male and female inmates were disparate from the general dentate U.S. adult population in terms of untreated decay. This also was found for IMCC male inmates compared to previous studies of male inmates. Inmates of both genders at IMCC did not appear to be disparate with the comparison population with regard to number of missing teeth.


This survey describes the prevalence of dental decay, moderate periodontal pocket depth, and urgent treatment needs in a sample of adult felon admissions. When possible, results are compared to reference groups. This is a descriptive survey without statistical tests of significance.

This survey found a higher mean number of decayed surfaces and percentage of unmet needs than those reported in reference groups. The prevalence of moderate and deep periodontal pocket depth was higher also. At least one-fourth of the sample had one or more urgent treatment needs. A possible cause for the difference between the survey results and the results for reference groups may be a higher representation of lower socioeconomic groups in the prison population.


This report describes the results of a 1999 follow-up examination of participants in a 1996 survey of adult felon new admissions. All subjects had been continuously incarcerated. Comparisons were drawn to reference groups and to the original 1996 survey. This is a descriptive study using a convenience sample. Oral health was evaluated using standard indicators. The survey found a substantial reduction in the prevalence of caries, improvement in periodontal health, and a decrease in the percentage of inmates with urgent treatment needs. Despite improvement, remaining dental needs were substantial. Utilization of services and frequency of visits were tabulated from chart reviews and demonstrated relatively high demand and frequent clinic visits.


Although prison populations remain predominantly young, the number of older inmates in state and federal correctional facilities has been increasing. This report describes the results of a health survey of 119 male inmates 50 years of age and older residing in Iowa state correctional facilities. Subject's disease history included hypertension (40%), myocardial infarction (19%), and emphysema (18%). Most participants (97%) had missing teeth, 42% had gross physical functional impairments, and 70% smoked cigarettes. These findings have implications for health care provision and release planning.

Connecticut. METHODS: All inmates admitted into the Federal Correctional Institution at Danbury, Connecticut, from May 31, 1997, to May 21, 1998, were given oral screening examinations (n=500; age range=20-65 years). The data were analyzed in terms of race/ethnicity and age groupings. DMF and D/DF scores were determined. RESULTS: The mean DMFT and DMFS scores were 16.8 and 57.0, respectively; the scores were higher for non-Hispanic whites and Hispanics than non-Hispanic blacks, and increased with age. The mean DT/DFT and DS/DFS scores were 36.8 percent and 36.0 percent, respectively. These scores were higher for non-Hispanic blacks than non-Hispanic whites and Hispanics, and decreased with age. CONCLUSIONS: Female prisoners had high levels of dental caries and racial disparities persisted in the prison.

BACKGROUND: A caries prevalence study of prisoners in the North West of England was conducted to allow comparisons with results of the 1998 United Kingdom Adult Dental Health Survey. METHOD: A random sample of prisoners in the North West of England was interviewed and examined using the same criteria as the 1998 United Kingdom Adult Dental Health Survey. RESULTS: From a random sample of 316 prisoners, 279 (88%) were interviewed and 272 (86%) received a dental examination. Prisoners enter prison with twice as many decayed teeth (mean 4.2) than found in the general population in the North West of England (mean 1.9). Prisoners also have fewer restored teeth. There was little difference between the mean DMFT of adult male prisoners and young offender male prisoners. There was little difference in the mean DMFT of those in prison for more or less than two years. CONCLUSIONS: Prisoners in the North West of England had more decayed or unsound teeth, and fewer restored teeth than both non-institutionalised adults in the North West of England and social classes IV and V in England. Attempts to improve the effectiveness and efficiency of the Prison Dental Service in the North West of England may render the prison population dentally fit more speedily.

The oral health of prison inmates in England has come under increased scrutiny with the arrival of joint responsibility between the Home Office and the NHS for prison healthcare. This brief study indicates very high levels of oral disease amongst a group of prisoners attending for treatment in an English prison. Further study of the oral health of prisoners seems timely, as does the exploration of effective oral health promotion for this group of people.

OBJECTIVE: The principal aims of this study were to report on the prevalence of oral disease and its impact on the life quality of older (aged 60 and above) prisoners at Hong Kong SAR's elderly detention centre, China. DESIGN: A cross-sectional

An epidemiological survey involving clinical oral examinations and face-to-face interviews with 64 older prisoners at the centre. Clinical oral examinations were carried out following WHO criteria. The impact of oral health on life quality was assessed using the 14-item Oral Health Impact Profile measure, OHIP-14.

**RESULTS:** The prevalence of oral disease was high, the mean DMFT was 22.5 (SD 10.6) and 40% (18) of the dentate prisoners had shallow or deep periodontal pockets. Most (75%, 48) were in need of prosthetic treatment. Over half the prisoners experienced one or more oral health impacts on life quality during the previous year. This was associated with socio-demographic factors: employment status prior to incarceration (P < 0.01), oral health behaviour: smoking habits (P < 0.01) and clinical oral health status: DMFT (P < 0.05) and prosthetic need (P < 0.05).

**CONCLUSION:** Among inmates at Hong Kong's elderly detention centre, the prevalence of oral disease was high and the impact of oral health on their life quality was substantial. The impact of oral health on the life quality of the older prisoners was associated with prisoners socio-demographic background, oral health behaviour and oral health status.


The purpose of this study was to describe the prevalence of decayed, missing, and filled teeth among federal male prisoners (aged 21-75) in the US Penitentiary, Leavenworth, Kansas, and to assess the impact of age, race, number of years incarcerated, and number of visits to the prison dentist on these parameters of oral health. Inmates (n = 191) were randomly selected and represented 16.4 percent of the prison population (N = 1,161). Two calibrated examiners collected caries and tooth loss data using NIDR criteria. No radiographs were taken. Results showed a mean DMFT of 12.9 for inmates aged 20-34, 16.4 for inmates aged 35-44, and 22.1 for inmates aged 45 and older. Whites had significantly fewer decayed teeth (P less than .05) than black inmates for ages 20-34. The number of missing teeth increased significantly (P less than .01) with inmate age. Proportion edentulous (both arches) was 5.2 percent for ages 35 to 44, 17.3 percent for ages 45-54, and 45.5 percent for ages 55 to 75. Cross tabulations and chi-square analyses showed that inmates incarcerated less than two years had a significantly (P less than .001) lower utilization rate of dental services, and that inmates who made greater use of available dental services had fewer decayed teeth than those with lower utilization rates.


South African prison populations continue to grow because of the escalating crime and an overstretched judicial system. The aim of this study was to assess the oral health status of prison inmates in the Western Cape (Pollsmoor, Goodwood, Paarl and Worcester). A cross-sectional epidemiological survey involving a clinical oral
examination and face-to-face interviews was used to collect information on DMFT, periodontal health, perceived needs and the knowledge, attitudes and behaviour of inmates to oral health. Clinical examinations were carried out using WHO criteria. Of the 340 study participants, 264 were male and 76 were female. The prevalence of oral disease was high. The mean DMFT was 15.45 and the total DMFT increased with age. There was a reported impact on oral health quality of life, with many citing problems with eating, drinking and pain. Self-reported dental needs indicated a perceived need for dentures, scaling and fillings. Over two thirds of the sample (72%) reported that the dental services that they presently receive are poor. This study found a high prevalence of dental caries and periodontal disease among the correctional service populations. There is an urgent need for the development of a basic oral health care package that should be offered to all inmates as eventually many of them will be returning to the community.


BACKGROUND: This paper assesses the oral health status in a prison population and identifies risk factors associated with oral health. METHODS: Cross-sectional stratified random sample of 789 prisoners (657 males and 132 females) from 27 correctional centres across New South Wales, stratified by sex, age and aboriginality. A face to face interview was used to collect information on health status and behavioural risk factors. A subset of participants (312 males and 22 females) received an oral examination which enabled the decayed, missing or filled permanent teeth (DMFT) score to be calculated. RESULTS: In the last 12 months 391 (50 per cent) inmates had visited a dentist. Reports on treatment received at this last visit were mainly for dental examinations, (62 per cent), dental fillings, (38 per cent), and dental extractions (28 per cent). Self-reported dental needs indicated that 42 per cent perceived the need for a check-up; the perceived need for dental fillings was highest in females compared with males. The mean DMFT for the population was 20.4 and 3.4 for decayed teeth. CONCLUSIONS: This survey demonstrates that the standard of past oral health care for prison inmates is low. There is a need to be more attentive to oral health promotion as eventually respondents will be returning to the community.


This article profiles self-reported substance use, health, and mental health problems among a sample of incarcerated women in Kentucky as well as lifetime service utilization. Findings indicate that a high percentage of women reported use of alcohol, cocaine, and multiple substances during the month before incarceration. In addition, participants reported common health problems such as dental, female reproductive, physical injuries, and mental health problems including depression and anxiety. Participants reported moderate use of emergency room and mental
health treatment but limited substance abuse treatment utilization. Implications for criminal justice programs and linkages with community-based aftercare services for women are recommended based on findings that health and mental health problems are associated with service utilization before incarceration.


Medical records for 129 women incarcerated in a state prison were reviewed to assess the extent and nature of health needs and service use, both at the time of entrance to prison and during four months of incarceration. Descriptive analyses reveal that health needs and service use are extensive with a mean number of 12.7 service encounters in four months. Sixty percent of the sample indicate they had at least one significant medical problem at time of prison admission. Implications for health services and program planning for incarcerated women are explored, with an emphasis on targeting limited resources.

**Articles not included in the review**


