School Dental Health Project

B.K.L Walawalkar Hospital

Transforming lives...
One at a time!
School going children constitute an important fraction of the total population. School children are also having tremendous latent potential as future human resource of any country.

The health issues associated with school children are unique and need special interventions. Oral hygiene is often poor which leads to dental caries and a host of other oral and dental problems. Many children have Ear, Nose and Throat infections, which can be treated with antibiotics and ensuring clean environmental conditions.

Nutritional status in school children also needs attention and many of them require nutritional supplementation.

Keeping in mind the above challenges B.K.L Walawalkar Hospital proposed to hold a School Health Check-up cum treatment camp with special emphasis on oral and dental hygiene. This camp were held on periodic basis for school children so that adequate follow-up and monitoring can be maintained.
The approach used was both preventive and curative. The children were not just be screened but also treated for any abnormalities that might be found.

The activity was conducted on a periodic basis that included sequential follow-up. This ensured that the children’s health status would indeed be improved.

Special emphasis was given on oral and dental hygiene. Basic Information Education and Communication activities on thing like regular brushing of teeth etc were provided to children. This increased their awareness regarding dental hygiene and also made them aware of ill-effects of substances like gutka.

Referral services were provided for children needing tertiary care. Children were referred to BKL Walawalkar Hospital and basic medical care was provided free of cost.
To promote healthy living in school children with special emphasis on preventive measures.
Objectives

- Screen school children for health and dental problems in Chiplun taluka and suggesting preventive measures for the same.

- Promoting healthy living and oral health concept by ACSM activities (i.e. Advocacy, Communication and Social Mobilization)

- Treatment of simple problems like mild dental caries, nutritional deficiencies and other issues that can be dealt at field level.

- Referring children which need tertiary case to BKL Walawalkar Hospital for further management.

- Sequential follow-up of children for keeping a track on their health progress.

- Developing a public-private partnership (PPP) model between governments’ educational, health department and BKL Walawalkar Hospital in order to make the programme sustainable.

- Replicating this PPP model in other talukas of Ratnagiri District.
Step 1: Permission would be obtained from C.O Zilla Parishad, District Educational Officer, District Health Officer and Civil Surgeon.

Step 2: Once permission is obtained Block Educational Officer of Chiplun would be contacted and map of Chiplun Taluka, number and location of schools and number of school children would be obtained. Based on the data operational planning for the project would be done which would include the following:

- Time table for screening of school children of different schools.
- Logistics required for carrying out field activities.
- Planning of human resources including doctors, nurses and other staff.
- Setting up of referral mechanism to BKL Walawalkar Hospital for tertiary care.
- Monitoring and Evaluation methodology.
Step 3: Actual Screening of school children would include the following:
1. Anthropometric measurements including age, weight, height, Head Circumference, Chest Circumference and Mid-arm circumference.
2. General examination for Pallor, Icterus, Lymphadenopathy and any other obvious deformities/malformation.
4. Ear Nose and Throat (ENT) check up.
5. Systemic examination for CVS, CNS, RS and Abdominal System.

Step 4: Treatment
1. Oral dental caries which can be treated at field level would be addressed.
2. Other morbidities like nutritional deficiencies, minor problems like wax in ears would be treated at school level itself.
3. Children needing referral services would be referred to BKL Walawalkar Hospital by giving a health note to them which the children would have to give to their parents. The health note will mention the problem found out, which department to visit and when at BKL Walawalkar Hospital.
Step 5: Preventive measures
1. Health education would be provided to children regarding oral
dental hygiene and ill-effects of tobacco chewing/ meshri etc.
2. A kit containing tooth brush and tooth paste would be given to
children with actual demonstration of brushing of teeth.
3. IEC (Information, Education and Communication) would be
given regarding various health morbidities and how effectively to
prevent them.

Step 6: Follow-up:
1. Sequential follow-up would be done every 3 months till 1 year to
assess the progress of these children.

Step 7: Research
1. Data collected would be systematically analyzed to generate
useful information which would then be forwarded to respective
schools and government machinery.
SVJCT’s Walawalkar Hospital

Findings

Transforming lives...
One at a time!
## Overall Statistics – From 2007 Till Feb 2013

<table>
<thead>
<tr>
<th>Description</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Children Screened</td>
<td>12694</td>
</tr>
<tr>
<td>Total Children treated</td>
<td>5706</td>
</tr>
<tr>
<td>Total GIC</td>
<td>13952</td>
</tr>
<tr>
<td>Total teeth extractions</td>
<td>1055</td>
</tr>
<tr>
<td>Total Scaling</td>
<td>307</td>
</tr>
<tr>
<td>Total Cement filling/ZOE</td>
<td>581</td>
</tr>
<tr>
<td>Total X ray</td>
<td>71</td>
</tr>
</tbody>
</table>

Note: Follow-up children are counted twice in total children treated
<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>Less than 6 years</td>
<td>7</td>
<td>.3</td>
</tr>
<tr>
<td></td>
<td>6 to 10 years</td>
<td>1973</td>
<td>71.5</td>
</tr>
<tr>
<td></td>
<td>10 to 14 years</td>
<td>737</td>
<td>26.7</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2717</td>
<td>98.5</td>
</tr>
<tr>
<td>Missing</td>
<td>System</td>
<td>41</td>
<td>1.5</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>2758</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Mean Age: 9.41 years, Median Age: 9 years
<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missing</td>
<td>38</td>
<td>1.4</td>
<td>1.4</td>
</tr>
<tr>
<td>FEMALE</td>
<td>1375</td>
<td>49.9</td>
<td>49.9</td>
</tr>
<tr>
<td>MALE</td>
<td>1345</td>
<td>48.8</td>
<td>48.8</td>
</tr>
<tr>
<td>Total</td>
<td>2758</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>
## AT SCREENING

<table>
<thead>
<tr>
<th>Number</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children with caries</td>
<td>2579</td>
</tr>
<tr>
<td>Children with healthy teeth</td>
<td>141</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2720</strong></td>
</tr>
</tbody>
</table>

## AT 1ST REFERRAL

<table>
<thead>
<tr>
<th>Number</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children with caries</td>
<td>864</td>
</tr>
<tr>
<td>Children with healthy teeth</td>
<td>1856</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2720</strong></td>
</tr>
</tbody>
</table>

Note: Decrease in prevalence of caries after 1st referral = (94.8% - 31.76%) = 63.04%
At Screening: 22.6
At 1st Referral: 5.73
Decrease: -16.87

Mean Caries Teeth %
Caries Teeth Percentage

Histogram

Mean = 22.66
Std. Dev. = 14.585
N = 2,720
<table>
<thead>
<tr>
<th>Age Group</th>
<th>Posterior Teeth</th>
<th>Total Teeth</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 years</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>6/7 years</td>
<td>12</td>
<td>24</td>
</tr>
<tr>
<td>&gt;8 years a</td>
<td>16</td>
<td>28</td>
</tr>
</tbody>
</table>
Functional Posterior Teeth %

At Screening: 56.22%
At 1st Referral: 87.02%
Increase: 30.8%

Functional posterior teeth %
Age Wise Functional Posterior Teeth %

SVJCT’s Walawalkar Hospital

0 to 6 yrs | 6 to 10 yrs | 10 to 14 yrs
--- | --- | ---
43.94% | 50.11% | 52.4% | 86.02% | 33.62% | 66.61% | 22.99% | 89.6%

- Screening
- 1st Referral
- Increase
At Screening: 38.92%
At 1st Referral: 77.29%
Increase: 38.37%

SVJCT's Walawalkar Hospital
Transforming Lives... One at a time!
Age wise Functional Capacity %

SVJCT’s Walawalkar Hospital

0 to 6 yrs

Screening
1st Referral
Increase

6 to 10 yrs

10 to 14 yrs

14.29
73.81
88.1

34.47
76.16

51.1

29.09

80.19
41.69

Transforming lives... One at a time!
# Treatment Complete Status at the time of 1st Referral

SVJCT’s Walawalkar Hospital

<table>
<thead>
<tr>
<th>Treatment Complete</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>2057</td>
<td>77.2%</td>
</tr>
<tr>
<td>No</td>
<td>606</td>
<td>22.8%</td>
</tr>
<tr>
<td>Total</td>
<td>2663</td>
<td>100%</td>
</tr>
</tbody>
</table>
Field Activities: Screening

COVERING ZP SCHOOLS

IEC AT SCHOOL LEVEL
Free tooth Brush and Paste to Each Student

SVJCT’s Walawalkar Hospital
SVJCT’s Walawalkar Hospital

Screening
High prevalence of Dental caries
Referral Services

SVJCT’s Walawalkar Hospital

TREATMENT AT BKL
WELL EQUIPPED DENTAL DEPARTMENT
SVJCT’s Walawalkar Hospital

Results

PRE TREATMENT

POST TREATMENT
SVJCT’s Walawalkar Hospital

Transforming lives...
One at a time!