

Draft

Situation Analysis- Secondary data

2019-2020

Under Program

Adolescent Responsive Health Care Service: An Urban Surat pilot Initiative



(Surat Municipal Corporation & UNICEF initiative implemented by UHCRCE & city partner organizations)

Background

Adolescent Health program need to envisage that all adolescents are able to realize their full potential by making informed and responsible decisions related to their health and well-being - UNICEF in its 2011 State of the World's Children report entitled 'Adolescence: An Age of Opportunity'¹. There are more and more initiatives to understand adolescents' status, needs and factors determining adolescents' issues in various sectors including health to plan interventions.

Agenda for Sustainable Development and its Global Strategy for Women's, Children's, and adolescents Health provide a unique opportunity for accelerated action for the health of adolescents²

Adolescent Health Secondary data analysis for adolescent health and health seeking situation and to understand what is available and what shall be required to understand adolescents in number, their problems and needs was proposed under Adolescent responsive health care Pilot study, a joint initiative of SMC and UNICEF.

It was planned to explore adolescent age specific secondary data from census, NFHS4, TeCHO+ Family health survey, vital registration, RBSK, Medical college hospital records and urban health center records. Data collection and compilation took long time in absence of Adolescent age specific routine reporting system. Another challenge was difference in age groups of age segregated data under different sections of health records.

Data was mainly compiled from various divisions of health department of SMC with the permission of the department head.

Urban health is a new arena, Adolescent health is also a new arena within RCH program and have been conceptualized under different titles like Adolescent reproductive and sexual health program, Adolescent Friendly health services added by specific programs like RBSK and RKSK.

Surat the trade city is the city of migrants, city recognized for its rapid growth, climate vulnerability and responsive urban health system. City spreads in to 326.515 Sq. Km, with 334 slum pockets (2011 census). Literacy rate is 87.9%. Midyear estimated total population of the city is 6,078,457 (2018) and 44,66,826 census population (2011). Population sex ratio is 756 female: 1000 Male. Crude birth rate is 14.7 and death rate is 4.1.⁵

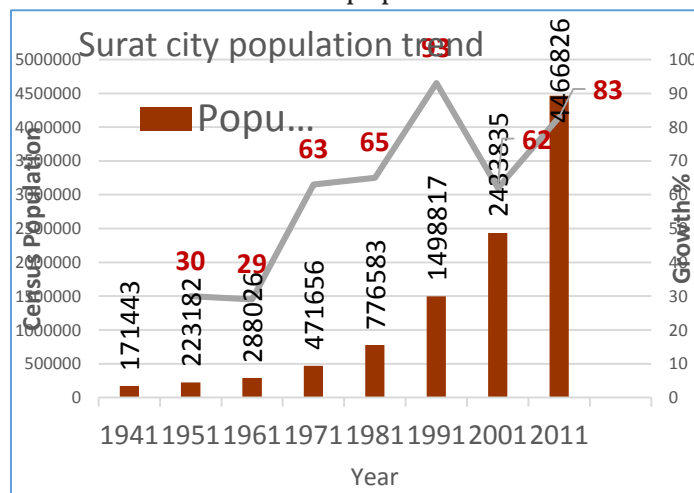
City public health system under Surat Municipal Corporation is governed by Deputy Commissioner Health and hospital and Medical officer of health. City is divided in to 8 administrative zones. 50 Urban health centers are located in these 8 zones and deputy MOH is the health department head at zone level. 4 Urban community health centers, 10 Health and wellness centers, 10 maternity homes and 10 ARSH clinics are providing advance care. There are 1004 ICDS centers providing services to urban poor including Adolescent girls' nutrition care. Two medical college hospitals NCHS and SMIMER are tertiary care centers under Public sector.

Fact Sheet						
	All Adolescents	10-14 yrs.	15-19 yrs	Boys	Girls	
Population						
Estimated Midyear Adolescent population	6,98,750					
Adolescent population registered under TeCHO+ (2018-2019)	6,46,459	378002	268457	3,56,708	2,89,751	
Average Population / UHC	12929	7560	5369	7134	5795	
Adolescent Sex ratio (TeCHO+)	812	819	801			
OPD cases of UHCs (August 2019)	7119	4116	3003	3300	3819	
15-19 Yrs. Married adolescents OPD cases of UHCs			172	45	127	
Morbidity- ARSH clinics- (10)- 2019						
Adolescents managed at ARSH clinics 2019	4923					
Skin problem	14.3%					
Pregnancy	3%					
RTI/STI	2.9%					
Menstrual health	2%					
Secondary school Morbidity RBSK 2018-19						
Secondary school students	2,08,672					
Sick students	22621(10.8 %)					
Students referred for treatment to higher center	1525 (0.7%)					
Anemia (clinical)	8690 (4.1%)					
Dental caries	2611					
Reactive airway	2077					
Skin problem	1858					
Vision- refraction	2673					
Thalassemia/ Hemophilia	337					
Malnutrition among Adolescent Girls (ICDS)2018-2019						
Examined						23247
Low BMI (<18.5)						36%
Over weight + Obese						11%
Adolescents registered at ART centers (3)- June 2019						
Total registration	259	137 (53%)	122 (47%)	138(53 %)	121 (47%)	
Adolescent MLC cases (Medical college hospitals)-2018						
Cases of Road traffic accidents, Sexual abuse , Suicide	5230					
5 of total Road traffic accidents, Sexual abuse , Suicide cases	50.5%					

Adolescents of Surat city

Estimation of Adolescents in Surat population:

As evident from census population trend Surat city decadal population growth is variable



and influenced by economic activities and job opportunities, with in migration rate influence. Every year Municipal corporation estimates midyear population of the city which is taken as a base. Estimated Midyear population 2019 of Surat city is 63, 52,273. (Midyear population estimates, <https://www.suratmunicipal.gov.in/TheCity/City/Stml13>)

Census 2011, **Youth** (15-24 years)

in **India** constitutes one-fifth (19.1%) of **India's** total population. @ Of 19% adolescent and youth. Population estimated number in 2019 is 12, 06,932.

Estimate derived for 14-19 years (Adolescent) population comes to 6, 98,750 (@11% of total population).

Adolescents registered for health service (under TeCHO+)

Total families registered	12,03,082
Total population registered	50, 12,267 (100%)
Average family size	4.16
Adolescent population registered	6, 46,459 (12.6%)
Adolescent boys registered	3, 56,708 (7.1%)
Adolescent girls registered	2,89,751(5.75)
10-14 Yrs. Adolescents registered	378002 (7.5%)
15-19 yrs. Adolescents registered	268457 (5.3%)

Year 2018-19 family health survey in Surat city was conducted under TeCHO+ program by health department of Surat Municipal Corporation. This is the first city specific IT enabled record of registration.

Family health survey registration covered total of **12,03,082** families with **50,12,267** population. As per age specific analysis total Adolescent population (10-19 yrs.) registered is **6,46,459** (12.6% of total population) , **3,78,002 (7.5%)** are in 10-14 yrs. and

2,68,457 (5.3%) are in 15-19 yrs. of age . **3,56,708 (7.1%)** are adolescent boys and **2,89,751(5.75)** are adolescent girls. (Table 1). Adolescent population sex ratio is **812**. Sex

ratio of 10-14 years adolescent is **819** and that of 15-19yrs is **801**. Adolescent sex ratio is lowest in east and North zone.

Inter zone variation in population registered as well as proportion of adolescents to total population is observed. Zones with higher slum and migrant population (South and South East) have higher proportion of adolescents than other zones.

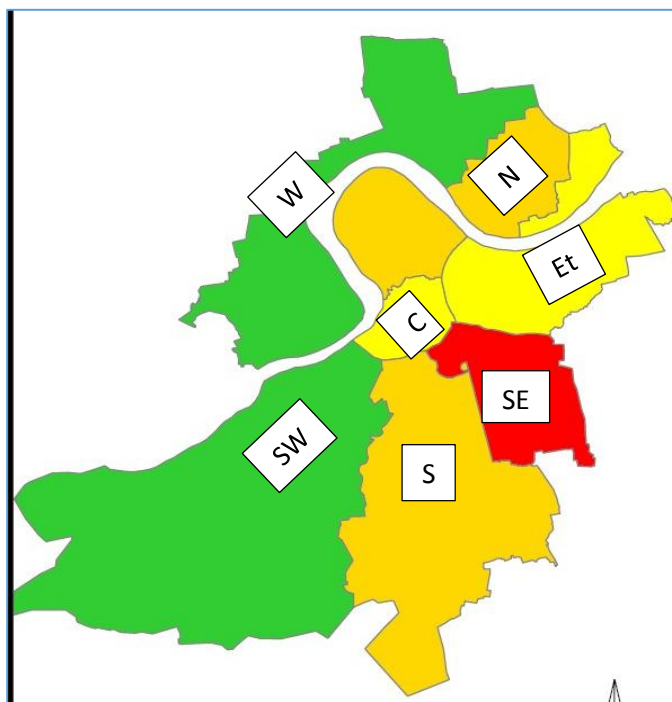
Zonal Demographic vulnerability:

Zonal demographic indicators reflecting relative demographic and service load vulnerability

Zone	Surat Zonewise population (SMC)			Registered population (TeCHO+)	Adolescent population		
	Decadal growth% 2001-11	density/ Sq.Km.	% of slum Pop.		Population / UHC	% of total population	Sex ratio
Central	-1.18	49971	12	5051	12.6	898	803
SW	43.30	3105	9.7	8620	10.6	852	815
South	70.36	11253	10.9	12384	13.3	811	615
SE	88.37	38390	19.6	14273	14.5	832	647
East	59.82	30303	8.0	13999	12.7	759	756
North	69.36	19392	8.2	22023	12.7	797	734
West	48.00	8288	6.1	16439	11.9	842	715

Note : Sex ratio= number of adolescent girls for 1000 adolescent boys
 Age ratio= number 15-19 yrs Adolescents for 1000 10-14yrs. adolescents

Highly vulnerable	Moderately vulnerable	Vulnerable	Least Vulnerable
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This brings the message for primary health care system about Adolescent health care challenges

South East (SE) zone is most vulnerable as well as Challenging for adolescent health care,

North (N) and South (S) zones are moderately vulnerable and challenging.

East (E) and central (C) zone are vulnerable .

South West (SW) and West (W) zone are least vulnerable.

Adolescents Health and health service utilization

Mortality: Total number of adolescent deaths (10-20 yrs.) Registered between 2009 to 2018 (10 years) are 6677, which comes to 667 deaths per year. Contribution of Adolescents deaths to total deaths in this time frame 3.2%. Contribution of adolescent boys to total men deaths and that of adolescent girls to total women deaths registered is same i.e. 3.2%

Overall age ratio (for 1000 deaths of 10-15 yrs.: deaths of 15-20 years) of adolescent deaths registered in a decade (2009 to 2018) is 2744. More deaths are registered in 15-20 yrs. age group.

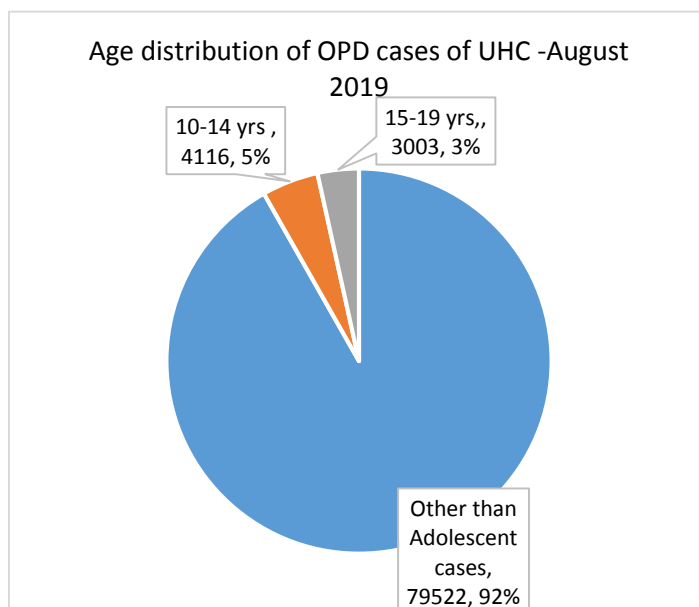
Age ratio of adolescent boys deaths registered in a decade (2009 to 2018) is 3046 and that of girls is 2371. Both in boys and girls deaths are more among 15-20 yrs. age than younger adolescents. This difference was more in boys than girls.

Morbidity: Details of morbidity was assessed by

- a) Attendance of adolescents to OPD of UHCs
- b) Morbidity registered at ARSH clinics at ten Urban health centers.
- c) RBSK services
- d) Malnutrition among adolescent girls
- e) Adolescent HIV cases
- f) Medico legal cases of Government hospitals
- g) RCH records of Pregnancy registration

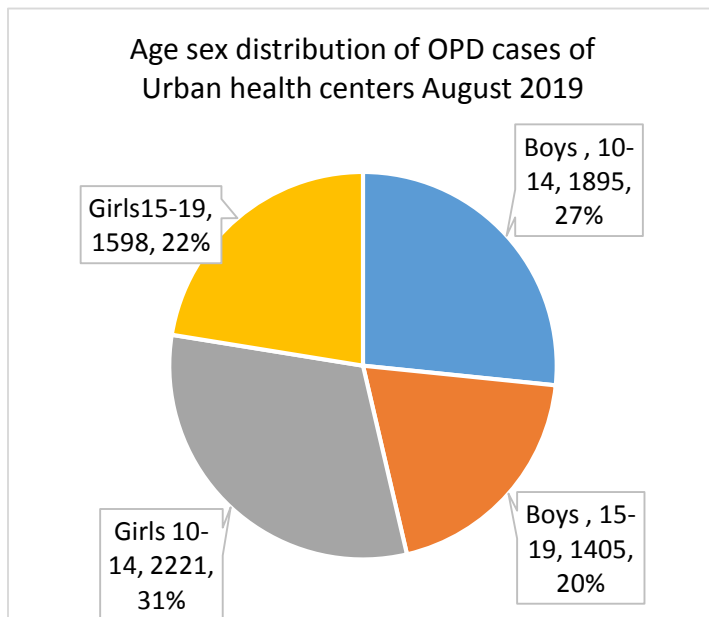
a) Attendance of adolescents to OPD of UHCs :

Currently in routine service monitoring data adolescent's data segregation is not done with a special efforts one month (August 2019) data was collected with the help of counsellors of UHCs.



Altogether 7119 adolescent attended UHC OPD in a month, which comes to 8.2% of total OPD cases. This includes 4.7% young adolescents and 3.4% older adolescents.

Contribution of younger adolescents to OPD cases at UHC is higher than older adolescents. Contribution of adolescents to OPD cases at UHCs is less than their contribution to population. Which is same in case of both younger and older adolescents.



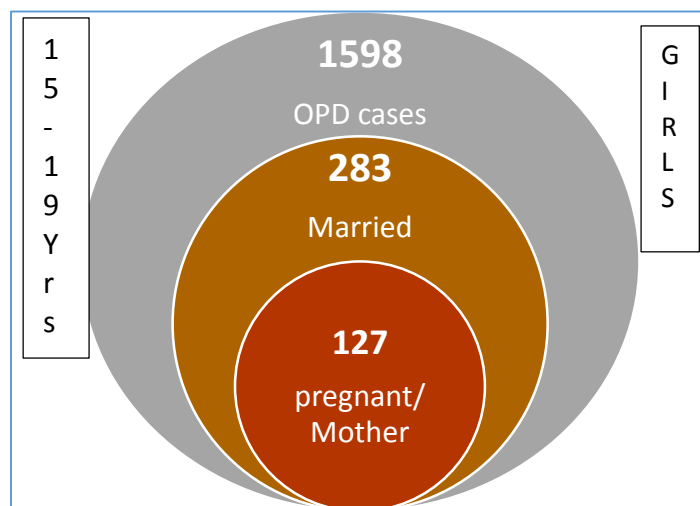
Number of Adolescent girls attending OPD was higher (53%) than boys (47%).

Amongst total adolescents cases attending OPD highest were girls in older age group 31%, followed by boys in 1younger age group 27%, girls in older age group 22% and Boys in older age group 20%

When age specific analysis of boys and girls attending OPD is done girls were 55% in younger age group and 65% in older age group.

Amongst adolescents more girls seek OPD services at UHCs than boys. True for both age groups of adolescents. In higher age group proportion of girls is even higher than younger age group.

Adolescent girls marriage at OPD:



Among 15-19 Yrs. adolescents attending OPD at UHC 45 boys (3.2%) and 283 (17.7%) girls were married.

127 (44%) girls in 15-19 years age, were either pregnant or having a child.

Pregnancy, post natal care or reproductive health care seems a major reason of attending OPD of UHC among adolescent girls of older age group.

b) Adolescent services at ARSH clinics:

- Ten out of 50 UHCs are running ARSH clinics. Official report prepared by health department of SMC is a source of information.
- In 2019 monthly registration ranged between 445-1051 and cases managed ranged from 219-783

- Health problems for which adolescents sought help at ARSH clinics include Skin problems (14.3%), Antenatal care (3.0%), RTI/STI management (2.9%) and Menstrual health problems (2.0%).
- Services provided at ARSH clinic includes IFA tablets supply to 15%, immunization to 13%, skin problem treatment to 5.4%, Antenatal care to 2.4% and RTI/STI treatment to 0.6% and Menstrual health treatment to 0.5%.
- Maximum referral for specialist consultation was for skin problem (4.3%) followed by ICTC (2.7%), RTI/STI clinic 1.5% and Obstetrics department 0.6%.
- All most all the registered adolescents were provided Nutrition counseling, 1/3 of them received skin care counseling, 11.7% premarital counseling and 5.8% counseling for RTI/STI.
- Surat Municipal Corporation have posted RTI/STD Counsellors at each urban health centers and they are trained for STD/ HIV counseling services as their prime duty, which reflects from the activities at ARSH clinics.

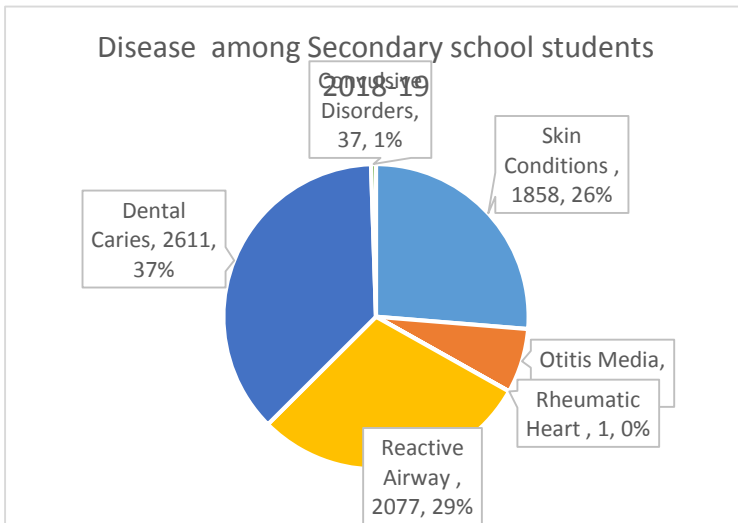
Thus at ARSH clinics in 2019 major help sought by adolescents at UHCs is for reproductive health and skin .Major services provided were preventive including vaccination and IFA supply , referrals were for Reproductive health and counselling services provided were also of reproductive health and HIV and Nutrition .

c) Adolescents under RBSK Program:

RBSK program records of health department of Surat Municipal Corporation is compiled and maintained as primary , i.e. 1-8 standard (6-14 yrs) and secondary school 9th to 12th standard (15-18 yrs).

For 2018-19 total students examined in in schools were 814147, including 6,05,475 of primary school and 2,08,672 of secondary school . 71% of schools and 73% of students were under private sector. In absence of separate young adolescent phase data records available only secondary school data is described.

22621(10.8%) Secondary school students were found sick. 1525 (6.7%) of them were referred to higher level treatment and rest were provided treatment by RBSK team.



Under RBSK health problems are classified as Deficiency, Disease and Defect. Deficiencies diagnosed. 8690 (4.1% of total examined / 38.4% of sick students) had anemia. 5 of these had <18.5 BMI. .

Commonest of all disease condition diagnosed were dental caries, followed by reactive airway, skin problem, ear infection, Convulsion and

Rheumatic heart.

Amongst top three two were personal hygiene related problems in need of education, care and support as a routine part of school education.

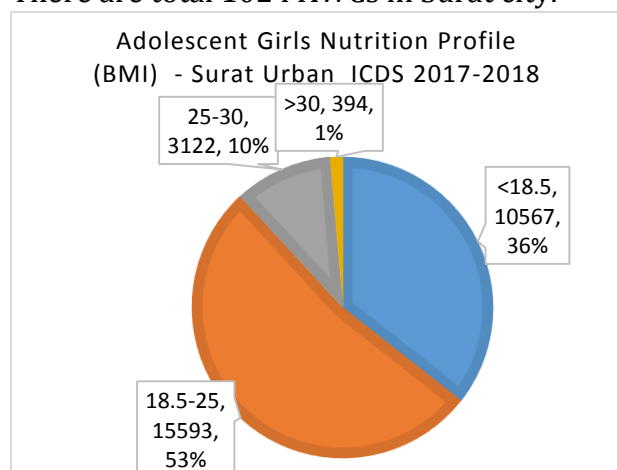
Secondary school children diagnosed with Defects RBSK 2018-19				
Vision	Hemophilia/Thalassemia	Hearing/speech defect	Neuro motor/Motor	Cognitive, Autism, ADHD
2672 (12.8%)	339 (1.6%)	34 (0.16%)	29 (0.14%)	24 (0.11%)

In defect category 12.8% of students were detected with refraction problem, 1.6% with blood disresia, 34 (0.16%) had hearing and or speech defect , 29 and 24 were detected with Neuro motor/Motor and Cognitive, Autism, ADHD respectively.

ADHD respectively.

d) Malnutrition among adolescent girls:

Urban ICDS program is functional in slum and slum like area, thus representing urban poor. There are total 1024 AWCs in Surat city.



Total 23247 girls were assessed in 2017-18 under Surat city ICDS program.

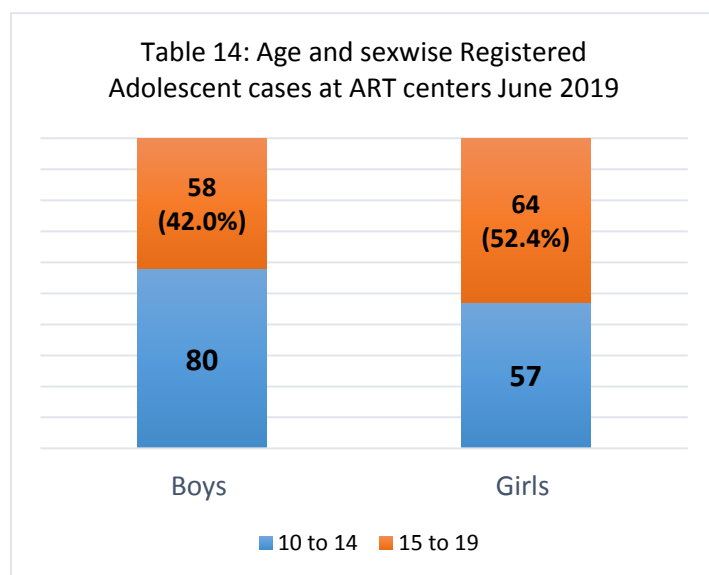
Analyzed data indicates that almost half of the adolescent girls were in normal BMI group, 36% i.e. almost one third girls were in low BMI category (wasting) and 11% were overweight / obese.

10567 adolescent girls with low BMI is a large number with a future risk of maternal

and child malnutrition in the city.

e) Adolescents. And HIV:

To assess HIV infection among adolescents compiled data of three ART centers of the city and ICTC centers was collected.. Total cases registered at centers are **5903**.



259 (4.4%) of total cases registered at ART centers are Adolescent cases (10-19Yrs.).

More Adolescents **137 (53%)** of 10-14 Yrs age were on ART registration than 15-19 Yrs. **122 (47%)**.

Amongst adolescent on ART registration **138 (53%)** were boys and **121 (47%)** were Girls.

In case of boys, percentage of younger age group (10-14 yrs.) was **58%**, which was higher than girls that in case of **47.6%** in that age group.

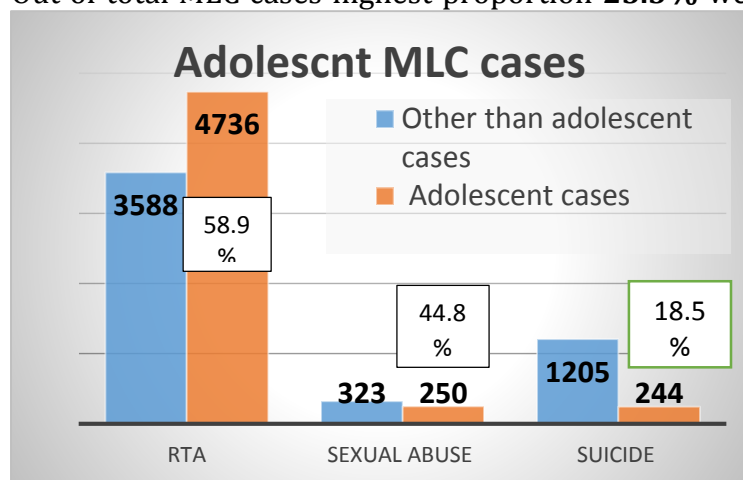
Sex ratio of adolescent cases registered at ART center was **712** in younger age group (10-14yrs.) i.e. more boys than girls, which is reversed in 15-19 yrs age group as **1103** i.e. more girls than boys.

ART registration figures interpretation can be: younger age group (10-14yrs.) more symbolizes vertical transmission with reflection of city level sex ratio at birth/ better survival of boys / treatment preference of boys. While the elder age group (15-19yrs.) is combination of vertical transmission survivors + active sexual life.

f) Adolescents and Medico legal cases:

Details of MLC cases were collected from record section of SMIMER and New Civil hospital. Total cases registered in the year 2018 were 35734.

Out of total MLC cases highest proportion **23.3%** were Road traffic accidents, **4.1%** were



suicide cases and **1.5%** were sexual abuse cases. Contribution of Adolescent cases to total road traffic accident cases was 59%, to total Sexual abuse was 44.8% and suicide was 18.5%.

Medico legal Cases Road traffic accidents, Sexual abuse and Suicide from 2013 to 2018 (six years) shows rising trend in general.

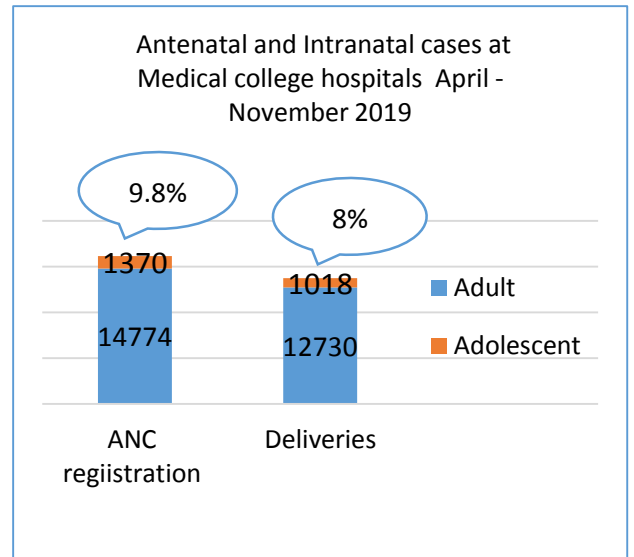
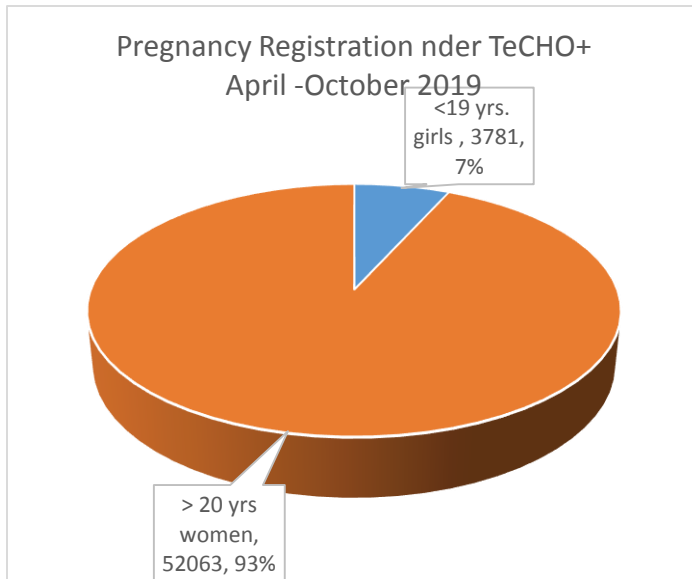
Proportionate contribution of adolescent Road traffic accident cases to total cases is 46-52% in first three years and almost 57% in later three years. Proportion of Contribution of adolescent cases to total cases of sexual abuse increased from 43% to 53% .Proportionate contribution of adolescent suicide cases to total cases has shown rising trend from less than 18% till 2014 and 18.8% in the year 2015 onwards.

This data indicates that among MLC cases almost half of road traffic accidents and sexual abuse cases, and one fifth of suicide cases are contributed by adolescents of the city. In last six years all the three cases have shown rising trend. Contribution of adolescent cases to total Road traffic accidents and sexual abuse cases have shown increase of 7-10% and suicide cases by 0.8%.

g) Adolescent Pregnancy:

Adolescent pregnancies is one of the indicator of Adolescent health, reproductive health of the region. As per NFHS4 4.2% of 15-19 yrs. women were already mother or pregnant in Urban Surat. To assess quantum of adolescent pregnancy such indirect indicators are used as getting reliable adolescent pregnancy records has socio legal limitations.

Adolescent pregnancy data was collected from TeCHO+ registration shared by Health department of SMC. As well as from Obstetrics department of GMCS and record section of SMIMER for the period of April 2019 to November 2019 (8months).



Out of total 55844 pregnancies registered under TeCHO+, 3781 pregnancies were of <19 yrs girls.

Data of Obstetrics departments of medical colleges (April 2019 to November 2019) indicates that out of total 16144 registered pregnancies 9.3 % was of Adolescent girls(15-19Yrs.), Out of total 13728 deliveries conducted in these institutions, 8.0% were of Adolescent girls.

Overall estimate of adolescent pregnancies in the city derived from TeCHO+, Obstetrics department of Medical colleges and OPD cases of urban health centers comes to 8-10% of total registered pregnancies. In absolute figures may come to 1500-2000. If there is a reach up to unregistered pregnancies it may reach to even higher level.

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