

Statistical Analysis for the Intervention Programme for Children, conducted by IPER and funded by NFICH

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Frequency of Disease

In this part of the report we analyse the frequency of different disease among the children covered by the intervention programme during the period July 2006 to December 2007. The data was collected on 24 different disease categories, but as incidence was very low for many of them, they were clubbed in 5 alternative categories as follows:

Group	Disease type
1 - 4	Respiration related
5 - 9	Stomach related
10	Worms
11 - 16	Speech or Ear related
17 - 24	Urinary track related

The population of children were broken into 20 CHC units and data collected on each unit members. The analysis was carried out after classifying the units in to the corresponding KMC Wards as follows.

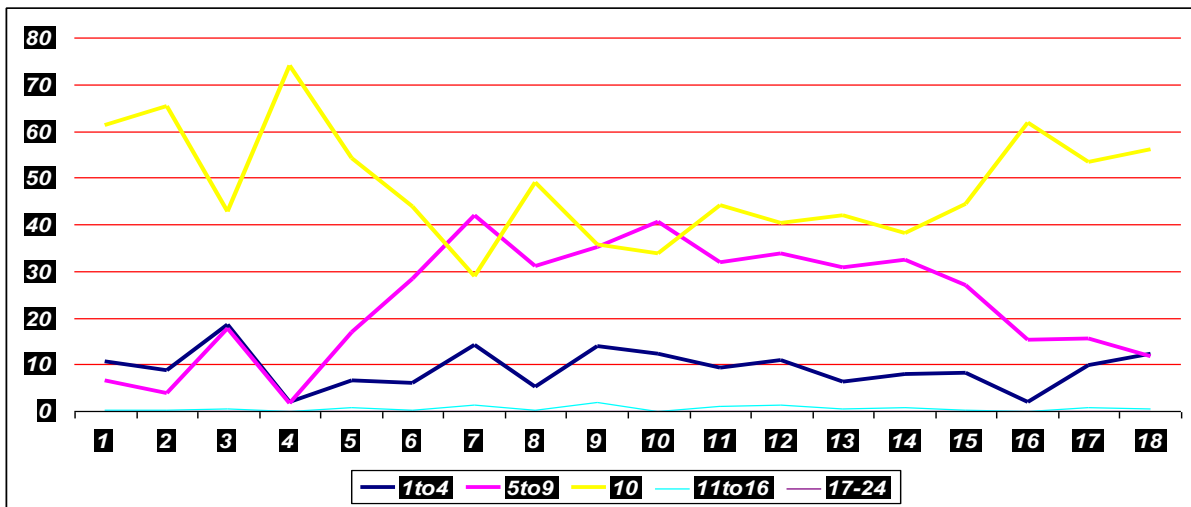
CHC Unit	KMC Ward	code	No. of Children*
1,2, 3, 4, 5, 6 & 16	65	12345616	275
7,8,9	67	789	140
12, 14,15	81	121415	147
19	83	19	41
18	84	18	52
10, 13, 17	93	101317	152
11, 20	94	1120	80

*: Because of multiple incidences reported from the same child, the number varies a little from month to month. We are reporting the minimum number here.

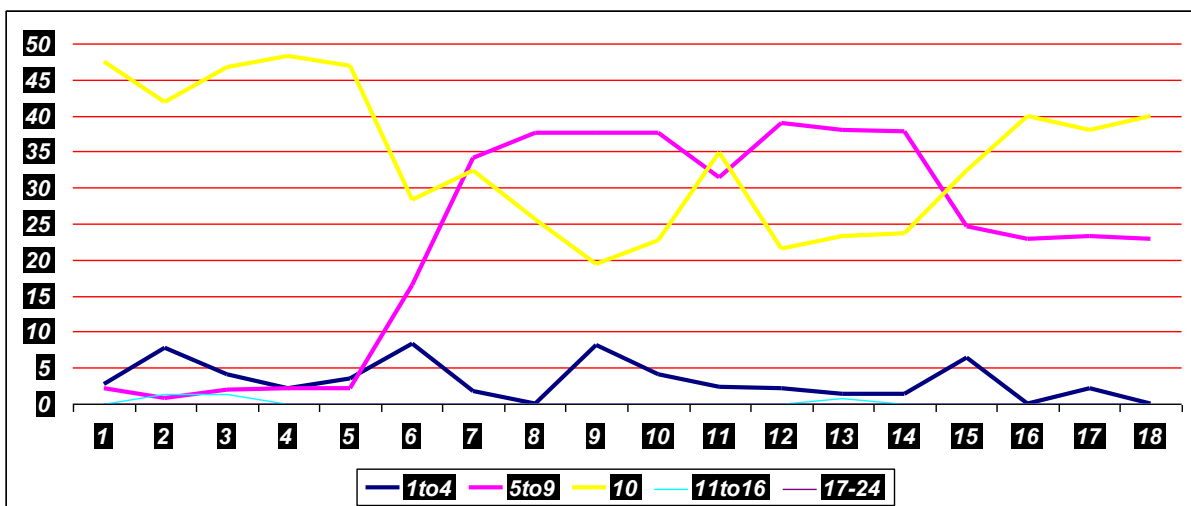
Ward specific presentation of the findings

The analysis was carried out using the *percentage* of incidence of a particular group of disease among the Ward's children. We present these figures diagrammatically below. The x-axis represents the time points (monthly figures for 18 months: July 2006 to December 2007) and the y-axis the percentages.

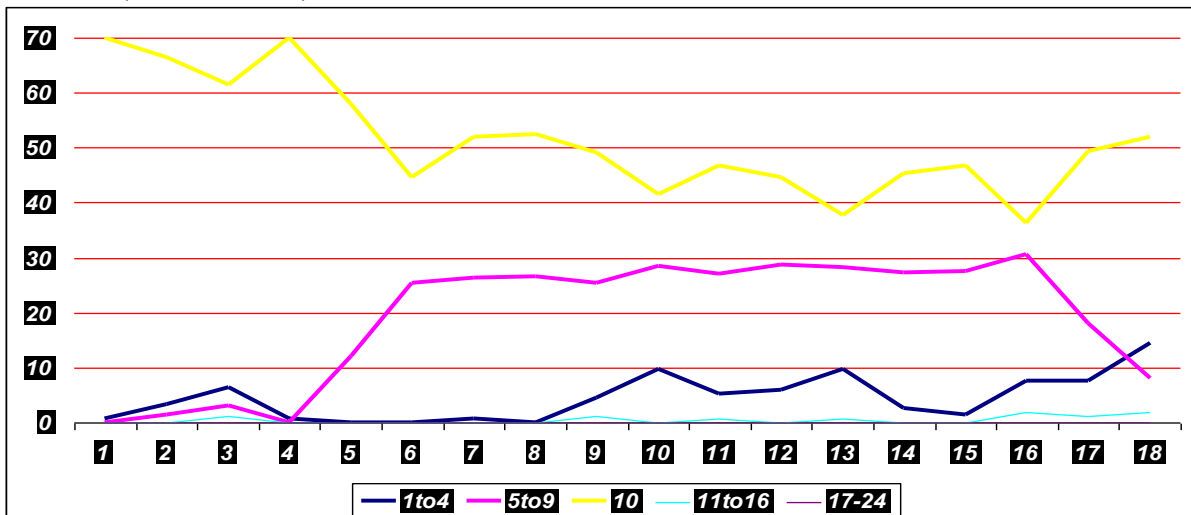
Ward 65 (code: 12345616)



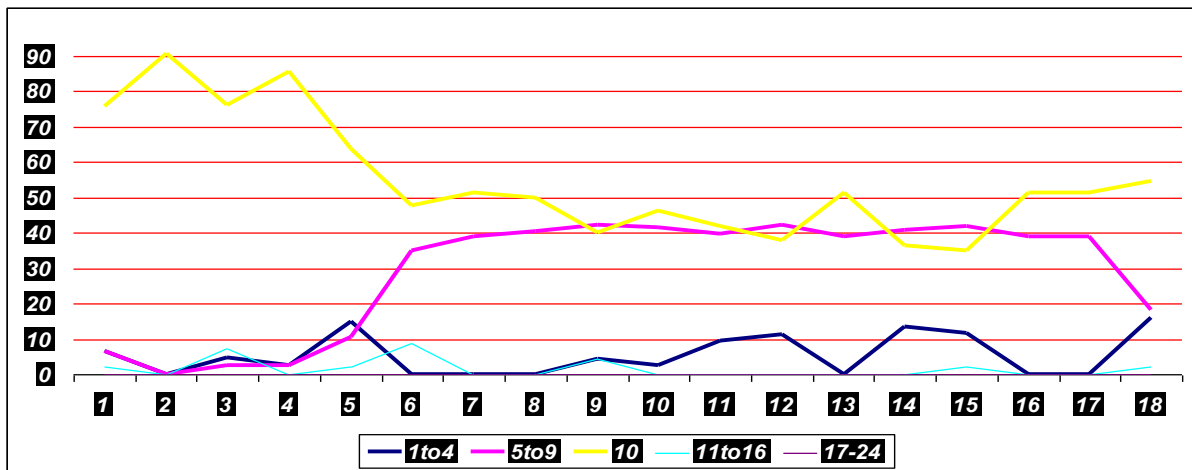
Ward 67 (code: 789)



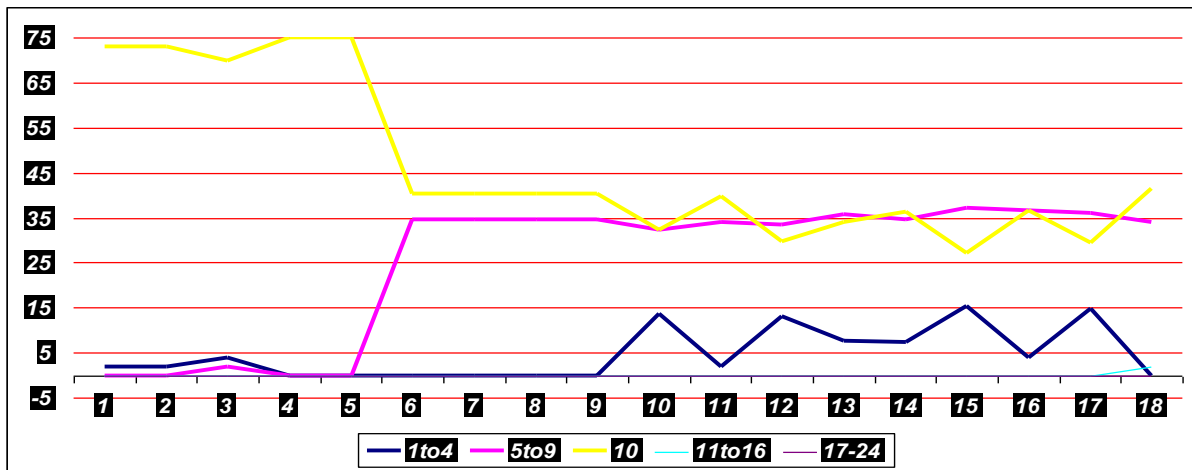
Ward 81 (code: 121415)



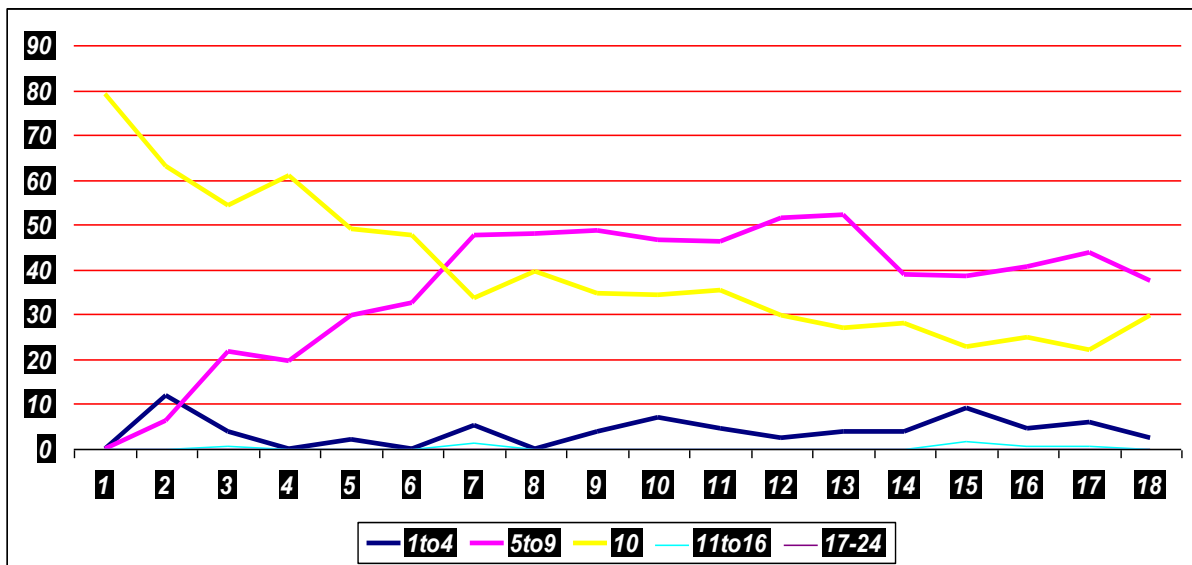
Ward 83 (code: 19)



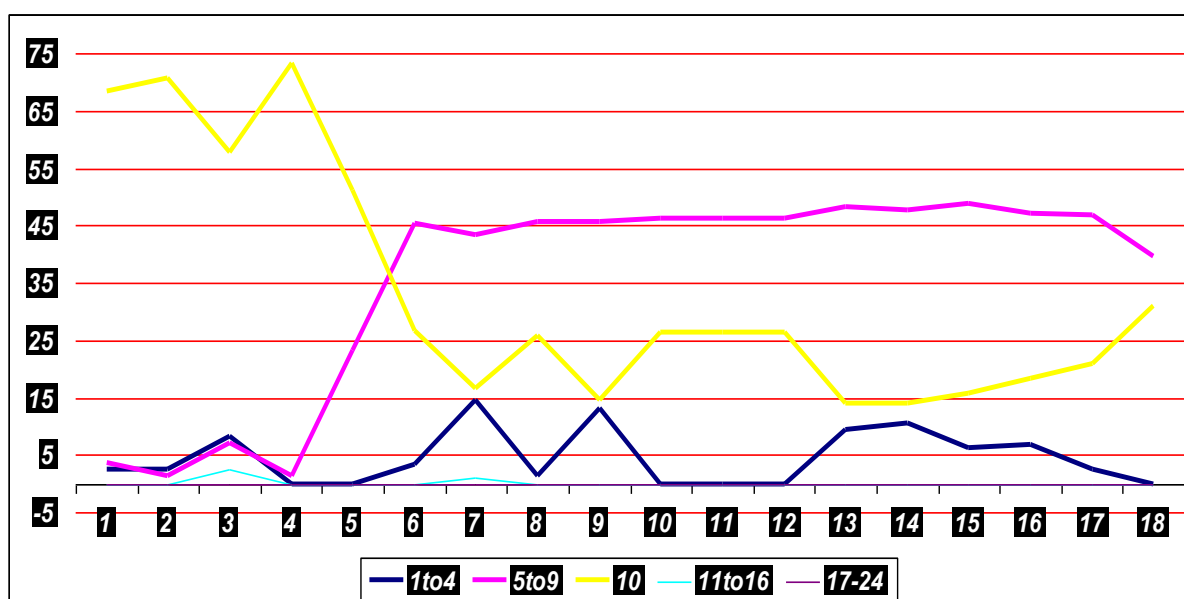
Ward 84 (code: 18)



Ward 93 (code: 101317)



Ward 94 (code: 1120)



General comments:

The incidence of disease groups 11 – 16 and 17 – 24 are so low that the percentages are not visible in the diagram. Due to this paucity, we do not make a comparative analysis for these two groups. The incidence of group 10 always dominates the graphs (incidence being 15 to 90% all the time) along with 5 – 9 (incidence 0 to 55%). The group 1 – 4 is the other significant one with around 0 to 15% incidence).

Group 10 shows a downward trend over the period under study, implying that Worms related problems were mitigated in the population over this period. The trend for “5 – 9” group is humped, possibly due to seasonal effects. But overall decrease is not evident. Similar conclusions can be drawn for the “1 – 4” group.

Average incidence over the 18 month period

Ward ->	65	67	81	83	84	93	94
disease							
1 - 4	9.107589	3.234007	4.46656	5.398523	4.705733	3.921586	4.492993
5 - 9	23.37789	22.90794	19.12234	28.87874	25.22757	36.13905	35.1921
10	48.25903	34.05325	51.34993	54.79127	46.33111	39.73758	33.20965
11 - 16	0.636591	0.193001	0.494806	1.623952	0.104822	0.277984	0.192447
17 - 24	0	0	0	0	0	0	0
none	18.6189	39.6118	24.56636	9.307508	23.63077	19.9238	26.91281

Overall, Ward 67 reports the best physical condition of the children (highest %age of “none”) and ward 83 being the worst. The average incidence figures show that over the entire period, the incidence of disease “10” was the highest in most of the wards, except ward 94 where group “5 – 9” has a slightly higher incidence. The incidence of “10” is higher in wards 65, 81, 83 and 84 (between 48% and 55%) with other wards showing lower figure (between 33% and 40%). For “5 – 9”, the pattern is more uniform (between 19 and 25%) with wards 93 and

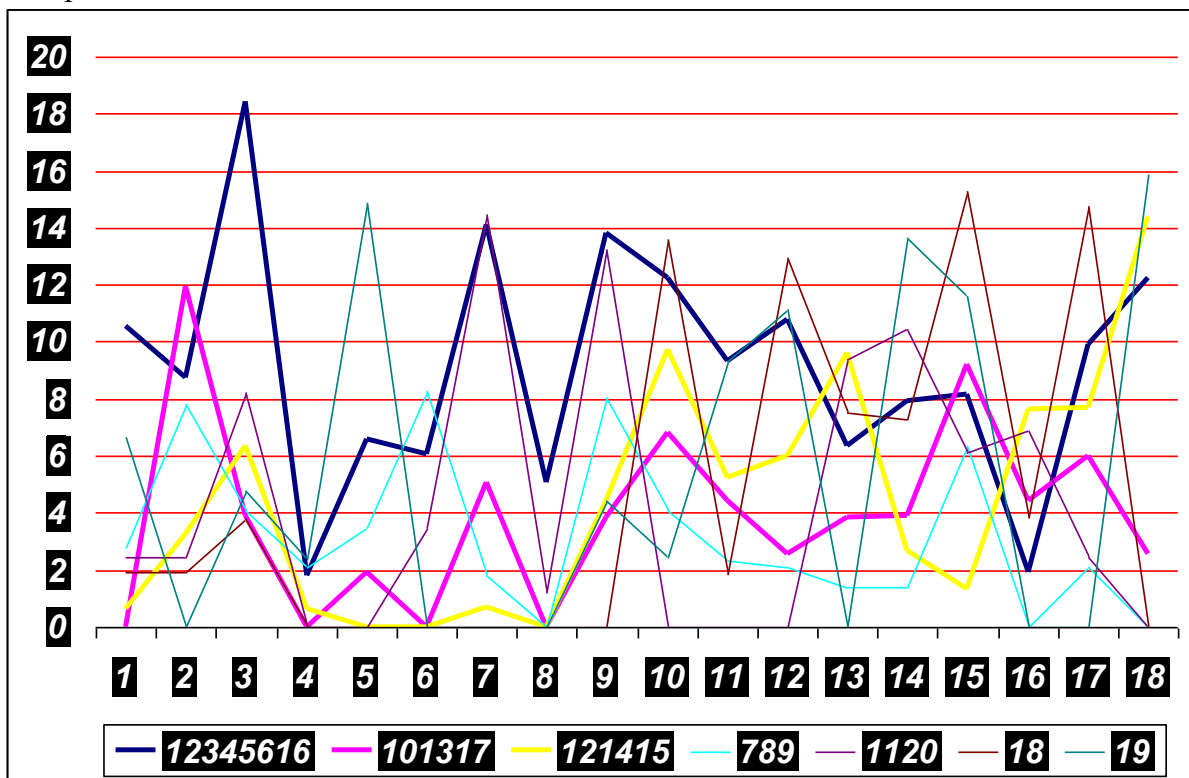
94 being on the high side (around 36%). The group “1 – 4” is generally low incident with a high of 9% in ward 65.

Comparative graphs for each disease group

Here we present a consolidated pattern for all the wards together for each group of important diseases. This helps in doing a comparative study of the effectiveness of the intervention programme in different locations and will provide important policy inputs to the future steps taken.

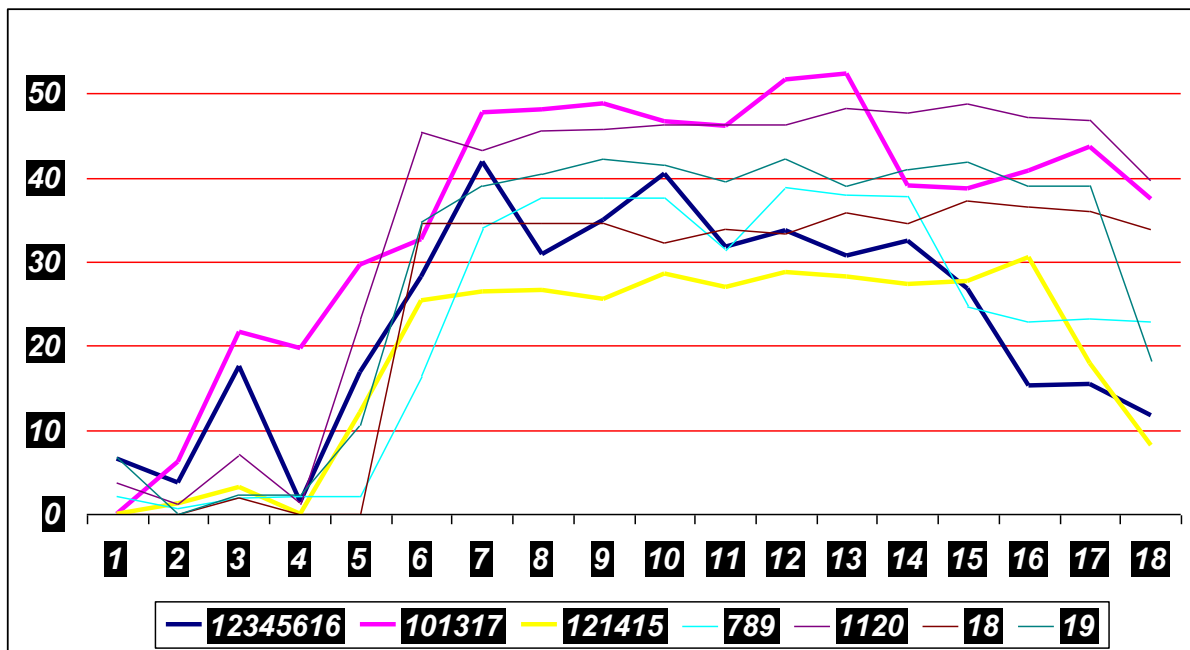
Group “1– 4” shows a lot of variation between wards as is apparent from the graph, with no systematic pattern.

Group 1 – 4



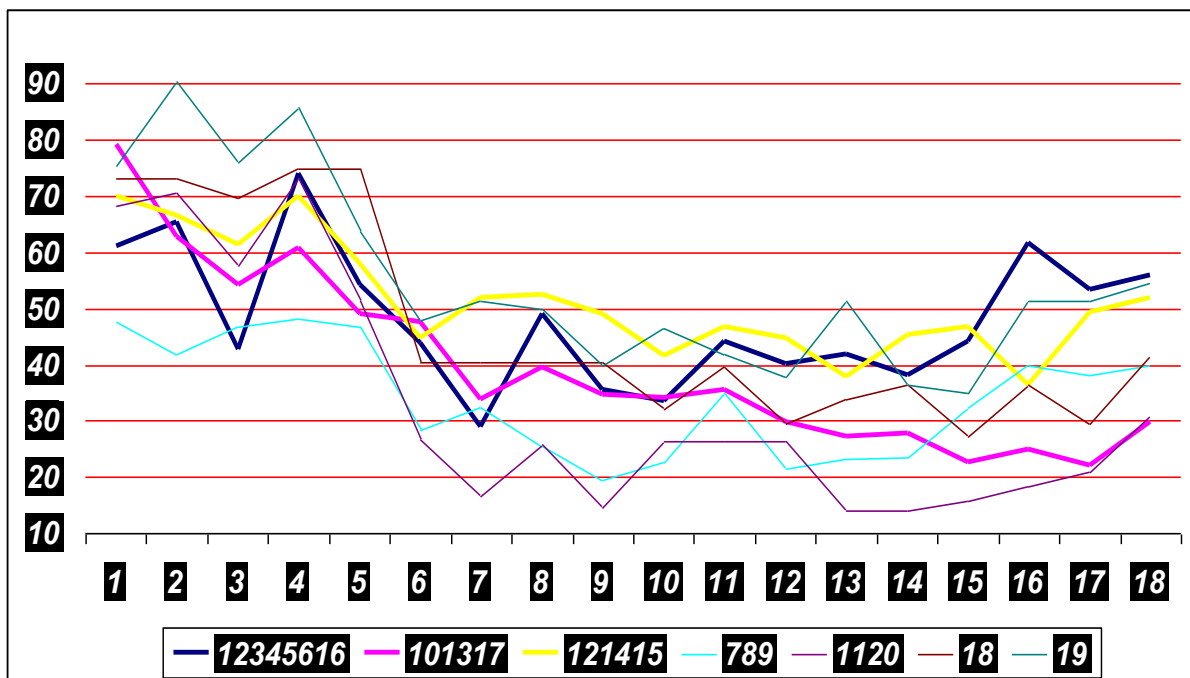
Group “5 – 9” has the same patter repeated for all of the wards, the humped shape with a recent downward trend which is encouraging, with wards 65 and 81 doing better than the others.

Group 5 – 9



Group 10, as mentioned earlier, is also showing marked improvement for all the wards, with a slight increase in the last two months. Overall, wards 93 and 94 doing better than the others.

Group 10



To summarise, it is seen that for the major disease groups, there has been improvement (reduction) in incidence in all the wards, so the response to the intervention programme is encouraging.