

Analysis of E-Healthcare centers in Lucknow

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Abstract: E-HealthCare center are much focused to ameliorate the health status of the country. In this paper, we are presenting an analysis of various Government Hospitals and private Hospitals in Lucknow. There are basically 10 Government hospitals, out of which only 7 hospitals have website. We had basically focused on some posh areas of Lucknow i.e. Gomti Nagar, Indira Nagar, Hajratganj, Mahanagar, Aliganj, Jankipuram, Alambagh, LDA Colony and Aashiana. The total number of Private Hospitals and Trauma centers in these areas is approximately 200. Out of which only 60 hospitals have their websites running. The in-depth analysis of these websites is done by using Alexa Tool. In this paper, we had also discussed about the Bounce Rate, Daily Page views and the average time the user spends on the site.

Keywords: E-HealthCare, Bounce Rate, Daily Page Views

I. Introduction

Lucknow is the heart of Uttar Pradesh. There are four districts surrounding Lucknow i.e. Sitapur, Barabanki, Unnao, Rae Bareilly and Hardoi Districts. E-Health did much to ameliorate the health status and quality of life standards of the people. It is a successful venture practiced in many states of India. There are basically three tiers of medical services. First tier of services are being practiced in Urban Areas and Tier 2 & Tier 3 services are being practiced in rural areas. E-Health is not only the word of technical era, but it also signifies one's state of mind, the way one reacts, the way one thinks and a pledge to ameliorate the health status worldwide [1]. The credibility of the website can also be found [2]. In this paper we had analyzed the websites of different government as well as private hospitals in Lucknow. There are basically 10 Government hospitals, out of which only 7 hospitals have website. We had basically focused on some posh areas of Lucknow i.e. Gomti Nagar, Indira Nagar, Hajratganj, Mahanagar, Aliganj, Jankipuram, Alambagh, LDA Colony and Aashiana. The total number of Private Hospitals and Trauma centers in these areas is approximately 200. Out of which only 60 hospitals have their websites running. We are using Alexa, a tool of Amazon Company [5] to analyze the search traffic of different websites, no of unique visits, Bounce rate, Daily Page Views, Websites Rank in India as well as the Global Rank of Websites. It is used for checking Website Traffic. It uses the Technique of Search Engine Optimization to analyze the data on Internet. It basically takes the data of previous three months and according to that it shows the analysis. It also shows that by how much the rank of the Website has degraded. Our major objective is to see the Search Traffic of different Websites and analyze it accordingly. Alexa software has many tools embedded in it, and it is being divided into two broad areas i.e. SEO Tools and Competitive Intelligence Tools. SEO Tools comprises of Keyword Difficulty Tool, Competitor Keyword Matrix, On Page SEO Checker and SEO Audit Tool. Competitive intelligence tool comprises of Audience Overlap Tool, Website Traffic Statistics, Find Similar and Top Sites, API & Alexa Browser Extension and API.

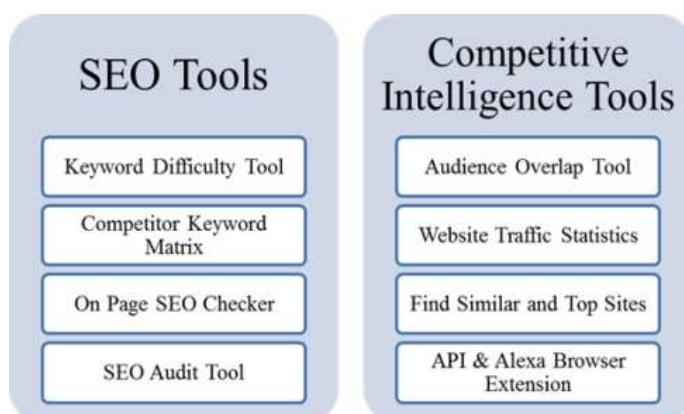


Figure 1: Components of SEO Tool and Competitive Intelligence Tool.

II. Analysis Of Health Care Centers In Lucknow

Health Care is an area of major concern in this present scenario. The Health Related problems are increasing in the country day by day. There are 10 government hospitals in Lucknow but only seven government Hospitals had their Websites running. Analysis involves collection of large data sets [3]. Health records work on global inoperability [4].

Table 1. Website Rank of all the Government Hospitals in Lucknow

| Serial No. | Hospitals Name | Global Rank | Rank in India |
|------------|--|-------------|---------------|
| 1. | Dr. Ram ManoharLohia Combined Hospital Lucknow | 7,893,149 | 356,912 |
| 2. | State Ayurvedic College and Hospital | 11,497,993 | - |
| 3. | Vivekananda Polyclinic | 3,355,694 | 280,945 |
| 4. | Sanjay Gandhi Post Graduate Institute of Medical Sciences, Lucknow | 255,482 | 29,568 |
| 5. | The Cantonment Board Lucknow | 2,201,335 | 232,262 |
| 6. | Dr. Ram ManoharLohia Institute of Medical Sciences | 233,735 | 55,843 |
| 7. | King George's Medical University | 309,755 | 22,528 |

In Table 1, the rank of all the Government Hospitals Websites is being shown. The Dr. Ram ManoharLohia Hospital Website has the Global Rank of 7,893,149 and its rank in India is 356,912. State Ayurvedic College and Hospital Website has the Global Rank of 11,497,993 and this website has no rank in India. The Website Global rank has declined 4,518,587 positions versus the previous three months. Vivekananda Polyclinic website has the Global Rank 3,355,694 and the rank in India is 280,945. The Global rank declined 113,533 positions versus the previous three months. The Sanjay Gandhi Post Graduate Institute of Medical Sciences has the Global Rank 255,482 and the rank in India is 29,568. The Global rank improved 820 positions in the previous three months. The Website of Cantonment Board Lucknow has its Global Rank 2,201,335 and its Rank in India is 232,262. It's Global Rank improved by 335,192 positions versus the previous three months. The Website of Dr. Ram ManoharLohia Institute of Medical Sciences has its Global Rank 233,735 and its Rank in India is 55,843. It's Global rank improved by 464,484 positions versus the previous three months. The King George's Medical University website has the Global Rank of 309,755 and its rank in India is 22,528. Its Global Rank improved 19,141 positions versus the previous three months [6-9].

Table 2. Website Rank of renowned Private Hospitals in Lucknow

| Serial No. | Hospitals Name | Global Rank | Rank in India |
|------------|---|-------------|---------------|
| 1. | Sahara Hospital, Lucknow | 1,846,988 | 127978 |
| 2. | Divine Hospital, Lucknow | 8,335,771 | - |
| 3. | Ford Hospital, Lucknow | 17,216,941 | - |
| 4. | Eye Q Super Speciality Hospital | 1,126,944 | 65,320 |
| 5. | Javitri Hospital | 12,806,966 | - |
| 6. | Apollo Hospital | 89,722 | 7980 |
| 7. | Dr. OP Chaudhary Hospital and Research Centre | 13,426,909 | - |
| 8. | Shekhar Hospital | 4,297,800 | - |
| 9. | Chandra Eye Care Hospital | 6,378,310 | - |
| 10. | Lucknow Health City Trauma Center | 6,085,394 | - |

In Table 2, the rank of all the Private Hospitals Websites is being shown. Sahara Hospital website has the Global rank of 1,846,988 and its rank in India is 127,978. The Global Rank of the Website declined 27,724 positions versus the previous three months. Divine Hospital Lucknow website has the Global rank of 8,335,771 and due to very less traffic it has no rank in India. The Global rank of the website improved 595,269 positions. Ford Hospital, Lucknow website has the Global rank of 17,216,941. Eye Q Super Speciality Hospital website has the Global rank 1,126,944 and its rank in India is 65,320. The Global rank improved 1,012,529 positions versus previous three months. Javitri Hospital, Lucknow website has the global rank of 12,806,966. Apollo Hospital, Lucknow website has the Global Rank of 89,722 and its rank in India is 7980. The Global rank declined by 7420 positions versus the previous three months. Dr. OP Chaudhary Hospital and Research center website has its global rank 13,426,909, its rank improved by 7,655,121 positions versus the previous three months. Shekhar Hospital website has the Global rank of 4,297,800 which has improved 2,854,463 positions versus the previous three months. Chandra Eye care Hospital website has the global rank of 6,378,310 which has improved 2,848,720 positions versus the previous three months. Lucknow Health City Trauma Center

website has the global rank of 6,085,394 which has improved 5,559,146 positions versus the previous three months.

III. Engagement Of Visitors To Hospital Websites

The Engagement of Visitors to different sites can be find out by Bounce Rate, Daily Page Views and Daily Time on Site. These are the parameters through which we can analyze the visitor's interest on a particular site.

Table 3. Bounce Rate, Daily Page Views and Daily Time on Site of all the Government Hospitals Websites in Lucknow

| Serial No. | Hospitals Name | Bounce Rate | Daily Page Views | Daily Time on Site |
|------------|--|-------------|------------------|--------------------|
| 1. | Dr. Ram ManoharLohia Combined Hospital Lucknow | - | 3 | 4:05 |
| 2. | State Ayurvedic College and Hospital | - | 4 | 3:43 |
| 3. | Vivekananda Polyclinic | 29.60% | 1.90 | 2:04 |
| 4. | Sanjay Gandhi Post Graduate Institute of Medical Sciences, Lucknow | 46.70% | 2.20 | 2:50 |
| 5. | The Cantonment Board Lucknow | 29.80% | 2.10 | 2:11 |
| 6. | Dr. Ram ManoharLohia Institute of Medical Sciences | 45.80% | 2.00 | 2:15 |
| 7. | King George's Medical University | 50.50% | 2.30 | 3:14 |

In Table 3, the Bounce rate, Daily Page Views and Daily Time on site of different hospitals is being shown. The Dr. Ram ManoharLohia Hospital has no Bounce rate, as there is very less traffic on it. The Daily Page Views on the Website is 3 and the users on an average spent 4:05 minute on the site. State Ayurvedic College and Hospital, has no Bounce rate, the daily page views on the site is 4 and users spent 3:43 minutes on the site. The Daily Page Views of this site has increased by 60% versus the previous three months and the daily time on site has been decreased by 29%. Vivekananda Polyclinic Hospital has the Bounce Rate of 29.60%, daily views on site are 1.90 and users spent 2:04 minutes on the site. The Bounce rate of the website is down by 45% versus the previous three months, the daily views is being down by 9.30% and daily time on site is down by 29%. The Sanjay Gandhi Post Graduate Institute of Medical Sciences website has the bounce rate of 46.70%, the daily views on site are 2.20 and daily time on site is 2:50 minutes. The Bounce rate of this website is up by 57 % versus the previous three months, the daily views is down by 34.51% and daily time on site is down by 12%. The Cantonment Board, Lucknow website has the bounce rate of 29.80%, the daily views on site are 2.10 and daily time on site that user spends are 2:11minutes. The Bounce rate of this website is up by 94% versus the previous three months, the daily views is down by 22.83% and daily time on site is down by 18%. The website of Dr. Ram Manohar Institute of Medical Sciences has a Bounce Rate of 45.80%, the daily views on site are 2.00 and daily time spend by users on site is 2:15 minutes . The Bounce rate of this website is up by 2% versus the previous three months, the daily views is down by 7.80% and daily time on site is down by 7.00%. The King George's Medical University website has Bounce Rate of 50.50%, the daily views on site are 2.30 and daily time on site is 3:14 minutes. The bounce rate of this website is up by 5% versus the previous three months, the daily views are up by 1.00 % and daily time on site is down by 8.00%.

Table 4: Bounce Rate, Daily Page Views and Daily Time on Site of some renowned Private Hospitals Websites in Lucknow

| Serial No. | Hospitals Name | Bounce Rate | Daily Page Views | Daily Time on Site |
|------------|---|-------------|------------------|--------------------|
| 1. | Sahara Hospital, Lucknow | 48.40% | 2.60 | 2:24 |
| 2. | Divine Hospital, Lucknow | - | 4.00 | 5:39 |
| 3. | Ford Hospital, Lucknow | - | 3.00 | - |
| 4. | Eye Q Super Speciality Hospital | 37.80% | 5.00 | 7:15 |
| 5. | Javitri Hospital | - | 4.00 | 5:09 |
| 6. | Apollo Hospital | 50.50% | 2.20 | 2:42 |
| 7. | Dr. OP Chaudhary Hospital and Research Centre | - | 3.00 | - |
| 8. | Shekhar Hospital | 31.30% | 2.40 | 3:37 |
| 9. | Chandra Eye Care Hospital | 54.60% | 2.00 | 4:05 |
| 10. | Lucknow Health City Trauma Center | 63.20% | 2.00 | 2:25 |

In Table 4, The Bounce Rate, Daily Page Views and Daily Time on Site of some renowned Private Hospitals Websites in Lucknow is being shown. Sahara Hospital, Lucknow website has the Bounce rate of 48.40%, the daily views on the website is 2.60 and the users spend 2:24 minutes on the Website daily. The Bounce rate of the website is up by 7% as compared to the data available from the previous three months, the daily views is up by 8% and daily time on site is down by 30%, as compared to the data available from the previous three months. Divine Hospital Lucknow website has no bounce rate, the daily views on site is 4 which is up by 200% versus the previous three months and the average daily time that a user spent on the website is 5:39 minutes. Ford Hospital, Lucknow website has no bounce rate due to less traffic data, the daily views on site is 3.00 versus the previous three months. Eye Q Super speciality hospital has the bounce rate of 37.80%, the daily views on the site is 5.00 and daily time on site is 9:15 minutes. The Bounce rate of the Website is down by 3%, the daily views on the site is up by 90% and daily time user spent on site is up by 140%. Javitri Hospital website has no bounce rate, the daily views on site is 4.00 which is up by 70 % versus the previous three months and the average time that the user spend on the website is 5:09 minutes . Apollo Hospital website has Bounce rate of 50.50%, the daily views on the site is 2.20 and time that the average users spent on site is 2:42 minutes. The Bounce rate of the website is up by 1%, daily views is down by 2.65% and daily time that the users spent on site is down by 6 % . Dr. OP Chaudhary Hospital and research centre website has no bounce rate and daily views on the site are 3.00. Shekhar Hospital website has bounce rate of 31.30%, the daily views on the site are 2.40 and the daily time that the average user spent on the site is 3:37 minutes. The daily views on the site are up by 40 % versus the previous three months. Chandra Eye Care Hospital website bounce rate is 54.60%, the daily views on the site are 2.00 and the time that the user spent on the site is 4:05 minutes. Lucknow Health City Trauma Centre website has bounce rate of 63.20 % , the daily views on the site is 2.00 and the time that the user spent on the site daily is 2:25 minutes. The Daily page views per visitor of the Website is up by 10% versus the previous three months

IV. Search Traffic Visits Of Various Hospitals

Search Traffic Visits in Alexa tool are being calculated on the websites visits during the period of three Months and the data is being updated on the periodical basis. The number of Unique Visitors totally depends upon the daily Page views of the site.

Table 5. Search Traffic Visits of all the Government Hospitals Websites in Lucknow

| Serial No. | Hospitals Name | Search Visits | No of Unique Visitors | Source |
|------------|--|---------------|-----------------------|-----------------|
| 1. | Dr. Ram ManoharLohia Combined Hospital Lucknow | - | 60% | Website, Google |
| 2. | State Ayurvedic College and Hospital | - | 59% | Website |
| 3. | Vivekananda Polyclinic | 33.30% | 57.1% | Google |
| 4. | Sanjay Gandhi Post Graduate Institute of Medical Sciences, Lucknow | 24.00 % | 57.1% | Google |
| 5. | The Cantonment Board Lucknow | 14.90% | 57.9% | Google |
| 6. | Dr. Ram ManoharLohia Institute of Medical Sciences | 21.60% | 59.2% | Google |
| 7. | King George's Medical University | 27.00 % | 44% | Google |

In Table 3, the Search Traffic Visits of different Government Hospitals is being shown. The Search Visits of Dr. Ram ManoharLohia Hospital is null as there was not enough Traffic data to be plotted. The number of Unique Visitors to the site is basically from Google. The State Ayurvedic College and Hospital doesn't have enough traffic data, so it cannot be plotted. Vivekananda Polyclinic has search visits of 33.30% which is up by 300% versus the previous three months. The no of unique visits from Google are 57.1%.The Sanjay Gandhi Post Graduate Institute of Medical Sciences has search visits of 24.00% which is up by 3% versus the previous three months. The no of unique visits from Google is 57.1.The Cantonment Board, Lucknow website has search visits of 14.90% which is up by 29% versus the previous three months. The number of unique visits from Google is 57.9%. Dr. Ram ManoharLohia Institute of Medical Sciences Lucknow has search visits of 21.60 which are down by 32% versus the previous three months. The number of unique visitors from Google is 59.2%. The King George's Medical University website has search visits of 27.00% which is up by 2% versus the previous three months. The number of unique visits from Google is 44%.

Table 6. Search Traffic Visits of some renowned Private Hospitals Websites in Lucknow

| Serial No. | Hospitals Name | Search Visits | No of Unique Visitors | Source |
|------------|---|---------------|-----------------------|-----------------|
| 1. | Sahara Hospital, Lucknow | 37.10% | 54.7% | Website, Google |
| 2. | Divine Hospital, Lucknow | - | 58.82% | Website |
| 3. | Ford Hospital, Lucknow | - | - | - |
| 4. | Eye Q Super Speciality Hospital | 16.30% | 48.5% | Google, Website |
| 5. | Javitri Hospital | - | - | - |
| 6. | Apollo Hospital | 33.90% | 56.2% | Google |
| 7. | Dr. OP Chaudhary Hospital and Research Centre | - | - | - |
| 8. | Shekhar Hospital | 50% | 83.3% | Google |
| 9. | Chandra Eye Care Hospital | - | - | - |
| 10. | Lucknow Health City Trauma Center | 15.80% | - | - |

In Table 6, The Search Traffic Visits of some renowned Private Hospitals Websites in Lucknow is being shown. Sahara Hospital, Lucknow website has search visits of 37.10% which is up by 42% versus the previous three months. The number of unique visits from Google to the site is 54.7% and the number of unique visitors who search by its website name is 35.09%. Divine Hospital website has no search visits due to very less traffic data. The number of unique visits on the site by its name is 58.82%. Eye Q Super Speciality website has search visits of 16.30% which is down by 51% versus the previous three months. The number of unique visits to the site is 48.5%. Apollo hospital website has search visits of 33.90% and the number of unique visitors to the site is 56.2%. Shekhar Hospital website has search visits of 50% and the number of unique visits through Google is 83.3%. Lucknow Health City Trauma center has search visits of 15.80%.

V. Concluding Remarks

The main objective of this research is to actually find how many people are actually aware of E-Health services provided by the Government and Private Hospital. In order to achieve this objective, we had analyzed various Health related websites by the help of Alexa tool. The Bounce rate of the website tells about the user visits on the website. Daily views on the site tell about the average no of visits on the site and the Daily Time on site tells about the time that the user spends on the particular site. The Sanjay Gandhi Institute of Medical Sciences, Lucknow website has the highest Bounce rate of 46.70% as compared to other government hospitals website. Whereas, among Private Hospitals of Lucknow, Sahara Hospital website has the highest Bounce rate of 37.10 % as compared to other Private Hospitals of Lucknow. In some site the data entry of Bounce rate was nil that signifies that there was not enough traffic data to be plotted. Search Visits, directly indicate the search traffic percentage of the website. The Vivekananda Polyclinic website has the highest Search visits of 33.30% as compared to other Government Hospitals of Lucknow. The search visits are of Sanjay Gandhi Post Graduate Institute of Medical Sciences Lucknow is 24%. Whereas, among Private Hospitals of Lucknow, Sahara Hospital has the highest search visits percentage i.e. 37.10 %.

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