

ROLE OF CIVIL DEFENCE IN COVID-19 MANAGEMENT IN UNION TERRITORY, CHANDIGARH (INDIA)

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Abstract

Civil defence is a voluntary force of citizens, who respond during any unforeseen situation in the locality. India enacted The Civil Defence Act, 1968 to provide basic training to its citizens regarding counter war measures. Later, in 2009 the responsibilities of the civil defence corps were increased, when government amended The Civil Defence Act 1968 and added disaster management as well. This paper highlights the role of civil defence in health delivery services and its effectiveness, and the coordination between civil defence organization and Chandigarh Administration in Covid-19 management in Chandigarh. The study is based on meta-analysis of statistical data pertaining to Covid-19 management available at national as well as Chandigarh administration levels. The findings of the study revealed that during the pandemic, civil defence organization played an important role in patient care, para-medical duties including ambulance services, medicines and food distribution, hospital ward maintenance, awareness campaigns, vaccination camps, cremations and para-policing duties like law and order maintenance, traffic management etc. However, as far as the effectiveness of these health services is concerned there are many flaws in it such as inadequate infrastructure including shortage of health care institutions, beds, ambulances, medical equipments, doctors, nursing staff and other medical staff, poor primary health services, high cost of medicines, preference of branded drugs over generic drugs, absence of periodic training to officials etc.

Keywords: Disaster Management, Covid-19, Civil Defence, Chandigarh Administration, health delivery services

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Introduction

The unprecedented situation erupted worldwide as an offshoot of Covid-19 was a reminder for mankind that, no matter how advanced we become technologically, still nature is supreme. The Pandemic Covid-19 hit so badly, that no one had the immediate solution and which resulted in worldwide lockdowns. Be it medical fraternity, scientists, researchers indeed everyone was feeling helpless during the period. But later the great brains of mankind finally found the vaccine to contain this deadly virus. (NDMA, 2011).

In every country there are different mechanisms and type of machinery working in the arena of disaster management but the prime focus is same i.e. saving lives of common people. As this paper focuses primarily on Civil defence so, basically civil defence is a worldwide accepted mechanism to tackle the disaster, be it natural or man-made. It is a voluntary force of citizens, who respond during any unforeseen situation in the locality. And on the same lines, India also has the civil defence organization, which focuses on the disaster management in the country by empowering the common citizens of the country.

India enacted the Civil Defence Act 1968 to provide basic training to its citizens regarding counter war measures. Later, in 2009 the responsibilities of the civil defence corps were increased, when government amended the Civil Defence Act 1968 and added disaster management duties as well.

This organization works under the administrative control of Ministry of Home Affairs, Government of India and there is a dedicated Directorate of civil defence at union level, and state level. At the district level the Deputy Commissioner act as the Controller of Civil defence. During the Covid-19 pandemic also, the civil defence organization and its volunteers did excellent work by providing relief services to common citizens. Although, many other crisis management agencies were also working tirelessly to help people during that period, But civil defence being a community driven organization came out as an aiding agency, for all other agencies like: Police, NDRF, Paramilitary forces etc.(NDMA, 2011)

Objectives of the study

The two main objectives of the paper are:

1. To study the role of civil defence in health delivery services and its effectiveness
2. To understand the coordination between civil defence organization and Chandigarh administration in Covid-19 management in Chandigarh (India).

Research Methodology

The study is based on meta-analysis of statistical data pertaining to Covid-19 management available at national as well as Chandigarh administration levels. Primary data were collected from the various stakeholders including personnel of civil defence organization, Chandigarh administration with the help of informal interviews. The secondary data were collected from the sources such as Government reports, official websites of ministries of Govt. of India/Chandigarh Administration etc.

Scope and Time Period of the study:

The study touched issues associated with health infrastructure, civil defence organization under its ambit. The time period of the study was 2020-2022. The rationale behind choosing this time period was to study the impact of Covid-19 in Chandigarh properly with meta-analysis of data available.

Covid-19 Management in India

The Ministry of Health and family welfare, Government of India was the nodal ministry for handling the health facilities in the country during Covid-19. It has several departments, autonomous bodies, research institutes under it. Ministry of Health and Family welfare is headed by a cabinet rank minister, who is assisted by minister of state. The ministry has two Departments viz. Department of Health & Family welfare and Department of Health Research. Each of this Department is headed by the Secretary to the Government of India (Ministry of Health and family welfare, 2023).

Department of Health and Family Welfare

The Department of Health and Family Welfare handles all the matters of ministry relating to health policy as well as and family planning in India, this department focuses on the health research and supervise autonomous bodies working under the ministry in the research field like Indian Council of Medical Research (ICMR).

Department of Health Research

The aim of the DHR is to bring modern health technologies to the people through research and innovations related to diagnosis, treatment methods and vaccines for prevention; to translate them into products and processes and, in synergy with concerned organizations, introduce these innovations into public health system.

Directorate General of Health Services

Directorate General of Health Services provides technical support to the Department of Health and Family Welfare for achieving Universal Health Care accessible to all citizens and to prioritize special groups and facilitate in dealing with prevention, mitigation, and containment of public health emergencies

There are several other autonomous bodies under it like:

- Medical Council of India
- Indian Nursing Council
- All India Institute of Medical Science (AIIMS) etc. and
- Post Graduate Institute of Medical Education and Research (PGIMER) (Government of India, n.d.)

Apart from Ministry of Health and Family Welfare and its attached bodies, there were many other organizations which were there in the field and providing health care service to the people:

Indian Red Cross Society

Red cross distributed Food and personal protection items to people stranded in houses due to lock-down in the country. IRCS also spread

awareness among masses regarding Covid-19 through their volunteers. Apart from all activities mentioned above, temporary shelters run and managed by IRCS country wide was converted into isolation centers, all the blood banks under IRCS was opened 24*7 and in view of lockdown pick and drop facility was provided by IRCS to donors for free. (India, R. C. n.d.)

Non-Governmental Organizations (NGOs)

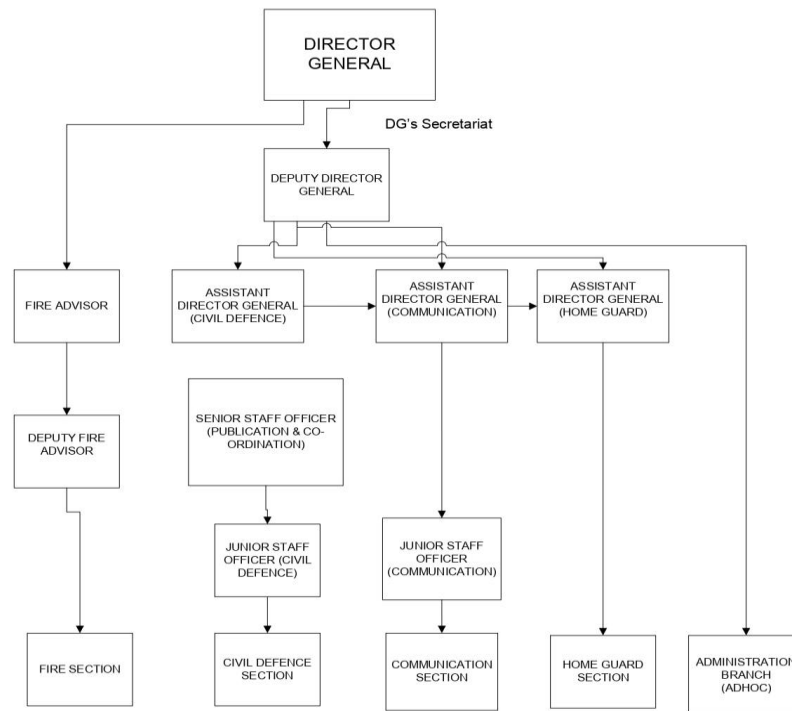
During Covid-19, volunteers of these organizations distributed meal and ration kits to hundreds of people in Delhi. 'Chikka Federation' which is United Nations accredited NGO conducted Covid-19 relief work through distribution of ration, masks and soaps etc. amongst resource-less communities in New Delhi and Bihar.

Another great NGO in the same segment was 'Khalsa Aid International', who provided free oxygen concentrators to Covid-19 patients not in India but in other countries as well. (I. India, 2021)

Civil Defence Organization

Civil defence Organization comes under the administrative control of Ministry of Home affairs, Government of India. There is a dedicated directorate of Civil defence, home guard and fire service in New Delhi, which controlled the Civil defence in the country.

Figure-1 Hierarchy Chart of civil defence at national level



Source: <https://dgfscdhg.gov.in/organisation-structure>

Figure-1 shows the organization structure of Civil defence at national level. There is a Director General who is at the apex and below him there is Deputy Director General and other staff. Civil defence organization worked in harmony with all the departments and agencies of government of India during the pandemic. The volunteers and staff of civil defence rendered their services in hospitals, health care centers and isolation centers, where they managed patients, helped doctor, nurses and other staff in day-to-day activities. They also render services in para-policing duties like: traffic management, law and order management, awareness campaigns with police personnel etc. (NDMA, 2011)

Chandigarh Profile

Chandigarh, the 'City Beautiful' is unique Union Territory of India as it is the capital of both Punjab and Haryana states. Chandigarh is also flanked by two satellite cities – Panchkula (Haryana) and SAS Nagar (Mohali) and

the triangle of these three cities is collectively referred as the Chandigarh Tricity.

Chandigarh, the dream city of India's first Prime Minister, Sh. JawaharLal Nehru, was planned by the famous French architect Le Corbusier. Picturesquely located at the foothills of Shivaliks, it is known as one of the best experiments in urban planning and modern architecture in the twentieth century in India. It has area of 114 square kilometers (Chandigarh Administration, n.d.-a).

Figure-2 Census data of Chandigarh

NO. OF DISTRICTS	CHANDIGARH	1	
AREA OF CHANDIGARH		114 sq.km	
POPULATION	PERSONS	1,054,686	
	MALES	580,282	
	FEMALES	474,404	
DECADAL POPULATION GROWTH 2001-2011		ABSOLUTE	PERCENTAGE
	PERSONS	154,051	17.10
	MALES	73,344	14.47
	FEMALES	80,707	20.50
DENSITY OF POPULATION (per Sq.km.)		9,252	
SEX RATIO (females per 1000 males)		818	
POPULATION IN THE AGE GROUP OF 0-6 YEARS		ABSOLUTE	PERCENTAGE TO TOTAL POPULATION
	PERSONS	117,953	11.18
	MALES	63,187	10.89
	FEMALES	54,766	11.54
LITERATES		ABSOLUTE	LITERACY RATE
	PERSONS	809,653	86.43
	MALES	468,166	90.54
	FEMALES	341,487	81.38

Source: Census 2011(<https://censusindia.gov.in/census.website/>)

Figure 2 indicates that population, density of population, male female population, sex ratio and literacy rate of Chandigarhas per 2011 census of India.

Figure-3 Sector-wise division chart of Chandigarh



Source: <https://chandigarh.gov.in/know-chandigarh/map>

Figure-3 shows the layout of the Chandigarh. The City is divided into 56 Sectors. Le Corbusier conceived the master plan of Chandigarh as analogous to human body, with a clearly defined head (the Capitol Complex, Sector 1), heart (the City Centre Sector-17), lungs (the leisure valley, innumerable open spaces and sector greens), the intellect (the cultural and educational institutions), the circulatory system (the network of roads, the 7Vs) and the viscera (the Industrial Area).

Chandigarh Administration

According to Article 239(2) of the Indian Constitution, there will an Administrator, who serves as the head of the Union Territory Administration, who is chosen by the President of India. The Advisor to the Administrator, an officer of the Indian Administrative Service (IAS), assists the Administrator in day-to-day activities. There are Seven Administrative secretaries and a number of other officers who further provide assistance to him. The Advisor is in charge of managing daily operations in UT. The various departments under these secretaries are like: Revenue, Water resources, Information technology, Police, Environment, Prison, Forest, Transport, Local government etc. (Chandigarh Administration, n.d.-b).

Health care System in Chandigarh

Chandigarh has robust health care system. It has premier health institutions like Post Graduate Institute of Medical Education and Research (PGIMER), Government hospitals, Primary health care centers and even Private hospitals.

As far as the health care system in Chandigarh is concerned, it is as follows:

Table:1 Health Centers data

<u>HOSPITAL & DISPENSARIES</u>		<u>2018-19</u>	<u>2019-20</u>	<u>2020-21</u>
Hospital	Nos. (Cum.)	7	7	7
Dispensaries	"	78	81	73
Hospital Beds	"	3382	3313	3712

Source: <https://chandigarh.gov.in/sites/default/files/stat2021/stat21-bnutshell.pdf>

As per the Table-1, we can see that the numbers of government hospitals in Chandigarh are seven in number, with Seventy three dispensaries. Total number of hospital beds available are 3712 (Three thousand seven hundred twelve) as per latest 2021 data in all the hospitals and dispensaries in Chandigarh. Therefore, the data shows that as far as the number of hospitals is concerned there is no change, the number of dispensaries has decreased, however, there is slight increase of hospital beds from year 2018 to 2021.

Statistics on Covid-19 dedicated centers

Figure-4 Covid-19 dedicated centers in Chandigarh

Hospital Name	Hospital Type	COVID Beds with Oxygen			COVID Ventilator Beds		
		Total	Occupied	Vacant	Total	Occupied	Vacant
PGIMER-12	Govt. Hospitals	380	172	208	70	27	43
GMCH-32		165	51	114	63	3	60

GMCH-48		104	0	104	17	0	17
GMSH-16		230	54	176	20	2	18
CH-45		27	2	25	15	0	15
Bal Bhawan, Sector -23	COVID Care Centre	50	11	39	0	0	0
Indira Holiday Home, Sec-24		47	13	34	0	0	0
Sports Complex, Sector 34		50	16	34	0	0	0
Police Hospital, Sector -26		52	18	34	0	0	0
IMA, Sector-35B		45	0	45	0	0	0
Shri Dhanwantri Hospital		55	0	55	0	0	0
Eden Hospital		Private Hospitals	20	4	16	10	2
City Hospital	9		0	9	2	2	0
Landmark Hospital	10		7	3	4	0	4
Mukat Hospital	19		2	17	4	1	3
Healing Hospital	10		0	10	2	0	2
Santokh Hospital	15		3	12	5	0	5
Kare Partners	6		0	6	7	1	6
Total		1294	353	941	219	38	181

Source: http://chdcovid19.in/chdcovidbed19/uploads/media_bulletin_files/2023-03-02.pdf

As far as the Covid-19 dedicated centers are concerned in the Chandigarh, figure-4 shows all the dedicated centers, number of beds in these centers.

As per the data available, there has been a total 18 Hospitals and Covid-19 dedicated care centers in Chandigarh.

The dedicated care centers were Bal-Bhawan, Indira Holiday Home, Sports Complex, Police Hospital, IMA and Shri Dhanwantri Hospital. Apart from the Government hospitals like: Post Graduate Institute of Medical Education and Research (PGIMER), Government medical college and hospital (GMCH)- Sector 32,48,16 etc. Private hospitals including Eden hospital, City hospital, Landmark hospital, Mukat hospital, Healing hospital, Santokh hospital, Kare partners were converted to Covid-19 dedicated hospitals.

Table: 2 Statistics showing number of Covid-19 confirmed cases and deaths as on 26.01.2022

COVID-19 Situation	Total Lab confirmed COVID-19cases	Deaths due to COVID-19
Global Scenario	359,349,527	5,634,665
India Situation	40,085,116	4,91,127
Chandigarh Status	87418	1105

Source: http://chdpr.gov.in/downloads/media_bulletin/

The Statistics presented in Table: 2 has been showing the number of Covid-19 confirmed cases and deaths at the global level, situation in India and the status of Chandigarh s as on 26.01.2022

Figure-5 (Data on Staff in Hospitals in Chandigarh)

DOCTORS ⁺ AT PRIMARY HEALTH CENTRES in Urban Areas						
S. No.	State/UT	(As on 31st March 2022)				
		Required ¹	Sanctioned	In Position	Vacant	Shortfall
		[R]	[S]	[P]	[S-P]	[R-P]
1	Andhra Pradesh	547	547	484	63	63
2	Arunachal Pradesh	5	NA	23	NA	*
3	Assam	90	164	141	23	*
4	Bihar	268	622	335	287	*
5	Chhattisgarh	52	119	96	23	*
6	Goa	4	8	8	0	*
7	Gujarat	330	334	302	32	28
8	Haryana	103	105	102	3	1
9	Himachal Pradesh	17	22	22	0	*
10	Jharkhand	70	63	32	31	38
11	Karnataka	383	462	413	49	*
12	Kerala	164	276	259	17	*
13	Madhya Pradesh	306	306	271	35	35
14	Maharashtra	686	1026	844	182	*
15	Manipur	21	17	17	0	4
16	Meghalaya	25	10	24	*	1
17	Mizoram	9	0	10	*	*
18	Nagaland	7	2	7	*	0
19	Odisha	105	120	107	13	*
20	Punjab	100	184	141	43	*
21	Rajasthan	276	390	332	58	*
22	Sikkim	2	2	3	*	*
23	Tamil Nadu	464	638	564	74	*
24	Telangana	256	422	314	108	*
25	Tripura	9	NA	20	NA	*
26	Uttarakhand	76	87	70	17	6
27	Uttar Pradesh	594	596	462	134	132
28	West Bengal	456	970	605	365	*
29	Andaman & Nicobar Islands	5	10	10	0	*
30	Chandigarh	43	60	67	*	*
31	Dadra & Nagar Haveli	2	2	2	0	0

Source: Health Statistics 2021-22 (<https://main.mohfw.gov.in/newshighlights-90>)

The figure-5 shows the detail of number of doctors available at urban health care centers. The data of Chandigarh show that there are total 67 doctors available as of now in various health establishments.

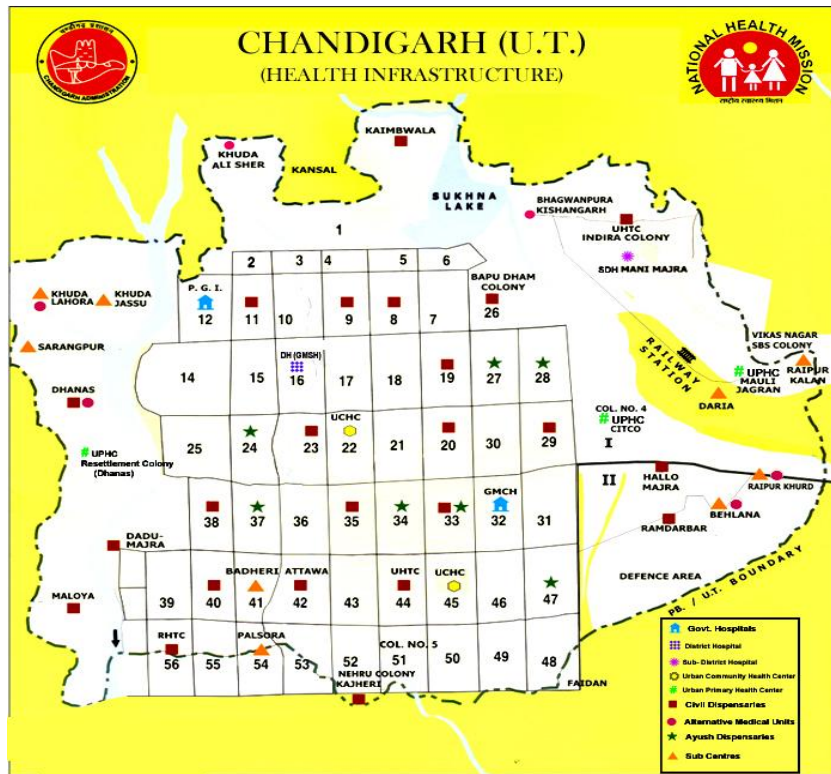
Covid-19 management in Chandigarh

Chandigarh being as a Union Territory is controlled by the Union government of India. The Central/Union government of India appoints an administrator for the U.T. Chandigarh, who manages all the affairs under its jurisdiction. To assist the Administrator, there is an advisor to administrator, who is generally a senior Indian administration services (IAS) officer and 7 other administrative secretaries.

The Health department is under the one of the 7 administrative secretaries and he looks after all the routine matters related to the health department in the Chandigarh. He reports to Advisor to administrator Chandigarh.

There is also a Director Health, Chandigarh, who is the Head of the department and oversees all the government hospitals, Public Health Centers, dispensaries and related administrative work. He reports to the Secretary health Chandigarh. So, in sum up all the departments of U.T. is actually distributed among these 7 secretaries and unity of command rests with the advisor of administrator.

Figure-6 HealthCare Establishment Division Map of Chandigarh



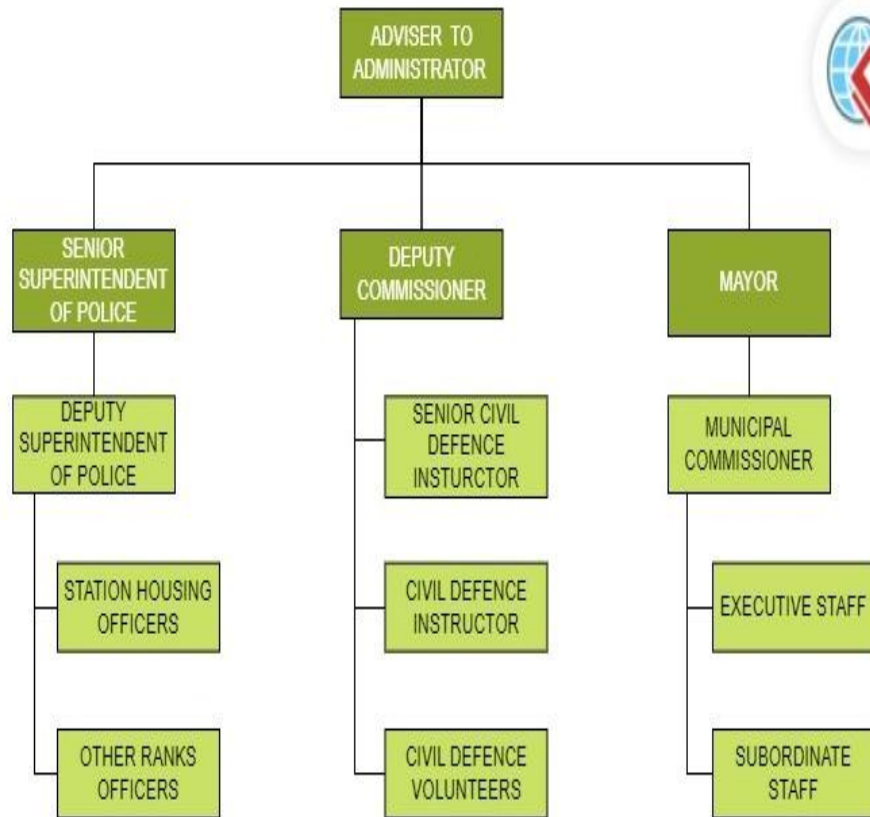
Source: <http://nrhmchd.gov.in/?q=content/map>

Figure-6 shows the health care establishments in Union Territory, Chandigarh i.e. Government hospitals, district hospitals, sub-divisional hospitals, urban community health centers, civil dispensaries, AYUSH dispensaries etc. and their locations (NHM, n.d.).

Civil Defence in Chandigarh

The Deputy Commissioner-cum-Director, Civil Defence, Chandigarh is the controller of Civil Defence Organisation. The office of the Deputy Commissioner, U.T, Chandigarh has been entrusted with the responsibility of looking after all matters that fall within the ambit of Department of Disaster Management for Union Territory, Chandigarh. During crisis, in the absence of Deputy Commissioner, ADC or any other officer on duty at that point of time shall remain in overall charge of the Control Room.(Administration, n.d.-c)

Figure-7 Hierachial structure of Chandigarh Civil Defence organisation



Source: self (<https://online.visual-aradigm.com/drive/#diagramlist:proj=0&diagram=list>)

There are some permanent posts in civil defence Chandigarh such as senior civil defence instructor, Civil defence instructor, Multi-Tasking Staff (MTS) etc., apart from volunteers, who manage day to day activities of the organization a dedicated training center is there, which imparts training regarding crisis management to the new volunteers. A disaster control room has been setup in the city, which is operated by the civil defence organization. The civil defence Chandigarh also conducts awareness campaigns and mock drills in school, colleges, universities and in markets to aware students and general public about the disaster's and their mitigation measures. The overall supervision and control regarding the disaster plan and policies formulation is with State Disaster Management Authority (SDMA) Chandigarh. It is headed by the Advisor to The Administrator U.T. Chandigarh.

Table: 2 Staff, Volunteers, Home Guards, NSS and NCC Civil Defence Chandigarh

Year	Civil Defence	Home Guards	NSS	NCC
2019-20	15	20	450	255
2020-22	30	37	750	350

Source: Establishment Division, Civil Defence Chandigarh

Training facilities

The newly recruited volunteers of civil defence are trained by civil defence instructors. The training includes techniques to save lives of people during disaster like Earthquake, flood, fire and CBRN (Chemical, Biological, Radiological, and Nuclear) disasters.

These volunteers also get law and order management and other para-policing services training under police department. For the higher disaster management courses and training civil defence organization send some fine volunteers to National Civil Defence College (NCDC), Nagpur. For the basic training there is an in-house setup in Civil defence office, Chandigarh, where new volunteers learn crisis management and lifesaving skills. The training equipments available with the organization were fire fighting devices, Charts and maps, video lecture's etc.

Budgetary Allocations**Figure-8 Budget Allocations to Civil Defence, Chandigarh**

Sl.No.	Year	Subject	BE	RE/Total Appropriation	Actual Expenditure
1	2017-18	DGCD (Revenue)	36200		
		DGCD (Capital Outlay)	200		
		Grant in aid (Election)	10000		
		Reimbursement to State for Home Guard	250000		
		Reimbursement to State for Civil Defence	100000		
2	2016-17	DGCD (Revenue)	38700	31800	33750
		DGCD (Capital Outlay)	200	200	22
		Grant in aid (Election)	20000	4000	0
		Reimbursement to State for Home Guard	350000	350000	350000
		Reimbursement to State for Civil Defence	100000	100000	100000
3	2015-16	DGCD (Revenue)	40200	38450	20836
		DGCD (Capital Outlay)	200	200	31
		Grant in aid (Election)	20000	5000	9460
		Reimbursement to State for Home Guard	390000	360400	360389

Source: <https://dgfscdhg.gov.in/budget>

Figure-8 shows the budget allocations to the Civil Defence Chandigarh from 2015-16 to 2017-18 as updated on their website. It can be analyzed from the previous budget allocations that funds are allocated to states only for regular functioning of Civil defence corps. There are no extra funds for new equipments or up-gradation of resources etc.

Role of Civil Defence in Covid-19 management:

Informal interviews were conducted with the officials and Civil defence volunteers to understand the ground zero situation of Covid-19 period and role of civil defence organization in Covid-19 management in Chandigarh and Findings are as follows:

1. Approximately 3000 volunteers from Civil defence, Home guards, National Service Scheme (NSS), National Cadet Corps (NCC) were put on duty under the supervision of Civil Defence Instructor during the first stringent lockdown period. The Volunteers were divided into

number of teams, and every team was assigned with specific task. Some teams were deployed in maintaining essential services to citizens like vegetables, milk, fruits, medicines etc. and other on traffic management, Patient care in Covid-19 centers, Cremation services, ambulance services etc.

2. When first Covid-19 case in Chandigarh was reported in the Bapudham Colony. The area was cordoned off immediately and the patients were quarantined, but after a couple of days suddenly many cases came out and it became the epicenter of corona pandemic in the city.
3. The time when common citizens were afraid of that area, civil defence volunteers, Police personnel and other Chandigarh administration staff, who without caring of their lives helped people of this colony to cope up with the Covid-19 disaster.
4. The volunteers served day and night and they hardly sleep for 6 hours in a day and this happened because of their commitment and compassion toward society.
5. Special care was given to senior citizens, women and children by providing them essential commodities at their door steps by the teams.
6. A positive side of society could be seen during Covid-19 period, there were many examples of persons/institutions those who genuinely help people. Religious institutions like Mandir's and Gurudwara's open up their doors for needy people and provided poor them accommodation and food. And many philanthropists in the city donated millions of rupees to administration and religious institutions to maintain the supply of food and other basic amenities to poor people. On the other side, there were people who refused to take dead body of their near ones, who lost their lives due to Covid-19. Civil defence officials said, we witnessed incidents where a son refused to lit pyre of his father so that he may not get infected with the Covid-19 and these abandoned dead bodies were then cremated by civil defence volunteers.
7. During the vaccination phase, Civil defence and other organizations volunteers help medical staff and common people in vaccination camps. From management of crowd in camps to maintain social distancing to give vaccination certificates to people all these tasks

were successfully done by these volunteers during that phase of pandemic.

Findings of the study

1. The study reveals that, there was good coordination between civil defence organization and Chandigarh administration in managing Covid-19 and they both worked in synergy to provide relief services to the citizens through dedicated teams of Chandigarh administration staff and civil defence staff and volunteers.
2. There is shortage of staff in organization and only 2-5 employees are permanent and rest other are working on ad-hoc basis. Civil defence volunteers are not satisfied with the long duty shifts, less facilities and meager allowances. The last recruitment in the organization was in 2014. The number of volunteers is also not sufficient in the city and civil defence basically relies on Home guards, NSS, NCC like organizations for volunteers.
3. There is no proper infrastructure available with Civil Defence, Chandigarh such as inadequate office space, no proper training facilities, old communication system etc. The major finding came out is the scarcity of funds with organization.
4. The training facilities with Civil defence Chandigarh are not adequate. The old methods and equipments have been used to train new volunteers, which serves no purpose.
5. As far as the budgetary allocation to the organization is concerned, it is not sufficient to upgrade the infrastructure and equip it with latest technology such as upgraded surveillance system, GPS, big data analytics, pandemic analytics, cloud and AI, 5G network, Internet of things with access to sensors, high-speed connectivity, cloud computing platforms, machine learning which helps in the prevention, preparation, response and recovery phases of disaster management. Therefore, civil defence is a neglected organization in the country and no one is paying heed, despite the fact, it is the organization which has been working in managing disasters thus serving the nation at front line.
6. Organization does not have its own emergency vehicles and they have to request Chandigarh administration every time to provide them vehicles to reach at the ground zero.

7. A major loophole in the administration of civil defence is that, it does not have a centralized hierarchical system. The Central Directorate of civil defence, New Delhi has very less control over the U.T. and State Civil defence machinery. Because in case of States, the civil defence is controlled by the respective State directorate, which is under the administrative control of Home Department of state and in case of U.T.'s civil defence it is under the concerned Deputy Commissioner and Advisor to Administrator. Which ultimately make this organization a scattered organization with less accountability. Although, Civil Defence, Chandigarh has less resources, but the vigor and commitment this organization has shown in the pandemic is appreciable. And for this devotion toward the duty and service to the society, civil defence organization has been awarded by the U.T. administration.
8. If we put light on healthcare system in Chandigarh, findings reveals both pros and cons in the system. Chandigarh has a network of government hospitals, primary health care centers and big private hospitals as well. It has one of the Premier health institutions of the country i.e. Post Graduate Institute of Medical Education and Research (PGIMER). The doctors and para-medical staff working in the above mentioned institutions are experienced and specialized in their respective fields and this is the prime reason that during Covid-19, the mortality rate in Chandigarh was less, as they managed the pandemic situation very efficiently with their wide experience. There was no scarcity of funds with the health department of Chandigarh because being Union Territory it got direct grants from the Union government for handling the pandemic situation; for instance, when Union government distributed grant for installation of oxygen plants in major hospitals in the country, PGIMER Chandigarh was one of them, that received grant for the same.
9. Looking at the other side of coin, the strength of doctors, medical staff, Para-medical staff and administrative staff is not adequate in the government hospitals of Chandigarh. The basic infrastructure in the government hospitals like beds, rooms, public utilities is in mercy-full condition which needs urgent overhaul. The numbers of government ambulances are less in number and available one's are also not in the good condition. The healthcare equipments and machines like: X-ray, CT- scan and MRI etc are also old ones and doctors usually refer

patients to private healthcare service providers for getting these tests done, who in lieu of this charge hefty amounts from them. During Covid-19 as well, people suffered a lot due to these lack of facilities in government hospitals.

Suggestions

1. As far as civil defence is concerned, there is shortage of volunteers in civil defence organization in Chandigarh, so the focus should be given on capacity building of common people, by making them aware about the disaster management and on harnessing lifesaving skills and finally motivate them to enroll as volunteers in civil defence.
2. The Second Administrative Reforms Commission (ARC) in its Third report, which is on crisis management, has also recommended that atleast 1% population of our country should be enrolled in civil defence as volunteer. As there is also shortage of permanent staff in the organization, the recruitment process should be initiated on mission mode to fill the vacant positions.
3. The Major reason of low morale in the civil defence volunteers countrywide is low duty wages and allowances during disaster management service and this is the reason, youth is reluctant to join this organization as volunteers. Therefore, it is suggested that government should ponder upon this issue and revise the duty wages and allowances of civil defence volunteers as soon as possible to boost up their morale.
4. The basic infrastructure is not there with the civil defence organization in Chandigarh, so it is hereby suggested that, adequate office space, training equipments, vehicles and communication devices should be provided to them to enhance their efficiency of their work. The high power committee under K.M. Singh also in its 2006 report has suggested to the government to overhaul the machinery of civil defence in the country and focused primarily on the infrastructure of the organization. Therefore, it is recommended that government should allocate sufficient amount to civil defence organization in every state and U.T. for their smooth functioning.
5. The Paper also highlights the hierarchical loopholes in the civil defence organization, so the Union government, state governments and Union territories should contemplate on this very issue and

should unanimously come out with a profound solution regarding the administrative structure of civil defence in the country to make it more accountable, disciplined and efficient organization. In this regard Union government in consultation with State and U.T. governments can put up a proposal in Parliament to centralize the Civil defence organization by bringing it totally under the Directorate of Civil defence, New Delhi or by merging the civil defence with NDRF (National Disaster Response Force) as an attached wing.

6. About healthcare system in Chandigarh paper suggest following major suggestions like improving infrastructure at primary and secondary health service levels, provide more grants to government hospitals for procuring medical instruments and equipments, recruit more doctors and medical staff etc. and also spend some resources on measures like organizing periodic capacity building programs on disaster management for civil society, government officials and medical staff.
7. In sum up the paper suggests that government should put more emphasis on revamping civil defence machinery in Chandigarh and also on health service delivery system and more over due respect must be given to these unsung heroes' i.e. Civil defence volunteers and Health care staff by resolving their grievances related to their services.

Conclusion

Basically civil defence is a worldwide accepted mechanism to tackle the disaster, be it natural or man-made. It is a voluntary force of citizens, who respond during any unforeseen situation in the locality. And on the same lines, India also has the civil defence organization, which focuses on the disaster management in the country by empowering the common citizens of the country. Civil defence has played robust role in the management of Covid-19 pandemic. Be it medical services, Para-policing services, awareness services, ration distribution services or other, the volunteers of civil defence selflessly obeyed these duties. However, it suffers from so many shortcomings such as inadequate centralized hierarchical system, less control over the U.T. and State Civil defence machinery, low budgetary allocations, out dated machinery and equipments resources, shortage of staff etc. Therefore, government should put more emphasis on revamping civil defence machinery in Chandigarh and also on health service delivery system and more over due respect must be given to these

unsung heroes' i.e. Civil defence volunteers and Health care staff by resolving their grievances related to their services.

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