

Ground-Level Data on Blood Emergency Issues

Fortex36 A National Level 36 hours Hackathon

Smart Blood Bank - Sanjeevni



NEURAL SQUAD

Global & National News Evidence

Global Impact of Blood Shortages

Blood shortages remain a major global health challenge, particularly in low- and middle-income countries. Studies show that ineffective blood supply chains contribute significantly to preventable deaths.

- In **India**, lack of timely blood availability is estimated to contribute to **thousands of preventable deaths annually**, highlighting systemic gaps in emergency healthcare.
- In **sub-Saharan Africa**, research indicates that **around 26% of maternal hemorrhage-related deaths** are directly linked to blood shortages.
- Global studies associate **high mortality rates** with poorly managed blood supply systems, especially in regions with limited infrastructure.
- These deaths represent **healthcare system failures**, not medical limitations.

INDIA'S BLOOD GAP: KEY FACTS



▶ India needs around 1.2 crore units of blood every year	▶ In the summer months, the shortfall often touches 50%, worsening the crisis
▶ Only about 90 lakh units are collected annually	▶ India still does not meet the WHO-recommended 1% blood reserve based on the total population
▶ This leads to a shortfall of approximately 30 lakh units each year	▶ Less than 50% of blood donations are truly voluntary; the rest come from relatives if patients

Global reports highlighting the impact of blood shortages on healthcare systems

Blood Supply Situation in India

India requires approximately **14.6 million blood units annually**, yet faces a **persistent shortfall of nearly 1 million units**, creating serious gaps in emergency and surgical care.

- Blood demand spikes during emergencies, festivals, and disasters
- Supply remains uneven across regions
- Rural and semi-urban areas are most affected

This story is from June 14, 2019

World Blood Donor Day 2019: India faces shortage of 1.95mn units of blood

TNN / Updated: Jun 14, 2019, 14:44 IST

Despite improved collection over the years (from 9.8mn units in 2012-13 to 11.45 in 2017-18), India is still not able to provide blood to everybody in need.

Blood shortages are causing thousands of preventable deaths globally, with an estimated 12,000 people dying daily in India alone due to lack of blood supply 2022.

INDIA NEEDS MORE BLOOD



Despite improved collection over the years (from 9.8mn units in 2012-13 to 11.45 in 2017-18), India is still not able to provide...

In the past few years, India has seen an improvement in the blood collection (from 9.8 million units in 2012-13 to 11.45 million in 2017-18). Despite this, India stares at blood shortage of a whopping 1.95 million units. Several myths keep people from not coming forward to donate. On World Blood Donor Day, a look at the status of blood donation in India and what keeps people away.

REGIONAL & LOCAL (PUNE) DATA

Blood Shortage in Pune

Pune is currently facing a **worrying shortage of blood**, with city-based blood banks urging citizens to donate. Every year after **Diwali**, blood donations drop sharply, worsening the situation.

- Pune requires ~1,500 blood bags daily
- Current collections are significantly below requirement
- Shortages directly affect emergency treatments and surgeries

City blood banks face worst shortage in 2 yrs, surgeries postponed in at least one health hub

Neha Madaan / Updated: Nov 30, 2025, 22:55 IST



Pune: Blood banks in the city are grappling with their steepest shortage in nearly two years as collections fail to keep pace with rising demand, forcing at least one hospital to postpone surgeries, representatives told TOI on Saturday.

Major blood banks said donations in Oct and Nov fell sharply below normal levels. Typically, the

crunch eases after the festive season, but the situation has barely improved this year. Dr Anand Chaphekar, chief blood transfusion officer at KEM Hospital, said, "Donor turnout always dips during festivals, but by Nov or Dec, things usually stabilise. This year, however, the improvement has been minimal. In recent six to seven camps, just 12 to 16 donors turned out per camp."

News article reporting acute blood shortage in Pune city

Local Blood Bank Data (Case Example)

One major blood bank reported:

- **19,649 units collected between January–September 2025**

- **293 donation drives** conducted during this period

- **In October**, collections dropped sharply to ~1,300 units only

HEADLINES OF THE DAY

India faces severe blood shortage

May 16, 2024



Blood donation is critical to healthcare, saving millions of lives each year. However, the World Health Organization (WHO) reports significant disparities in blood donation rate across different income levels. High-income countries report 31.5 donations per 1,000 people, low-middle-income countries report 6.6, and low-income countries report a mere 5.0 donations.



CLICK HERE TO KNOW MORE

The population need for blood is defined as the number of blood units required to transfuse all who require transfusion in a defined population over a certain period. Clinical demand is the total number of units of whole blood and components required to meet all blood transfusions for emergencies and elective procedures at health facilities over a defined period.

This sudden decline highlights how **seasonal and behavioral factors** impact blood availability.

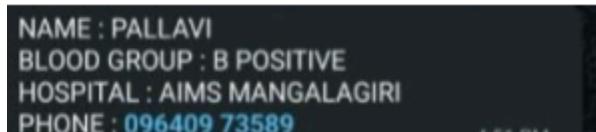
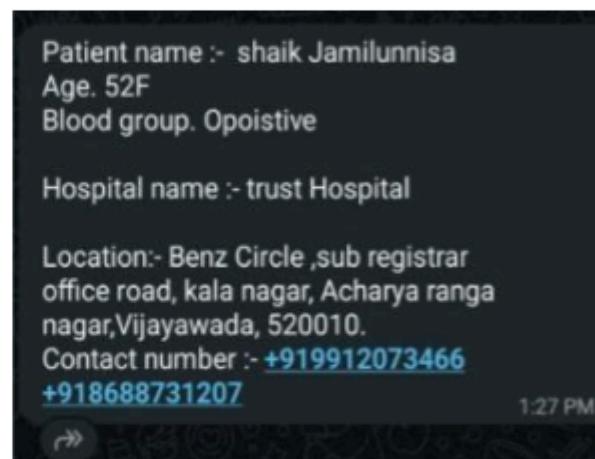
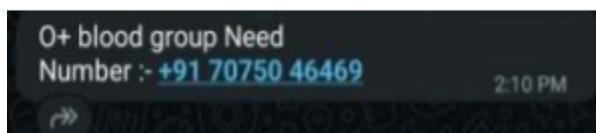
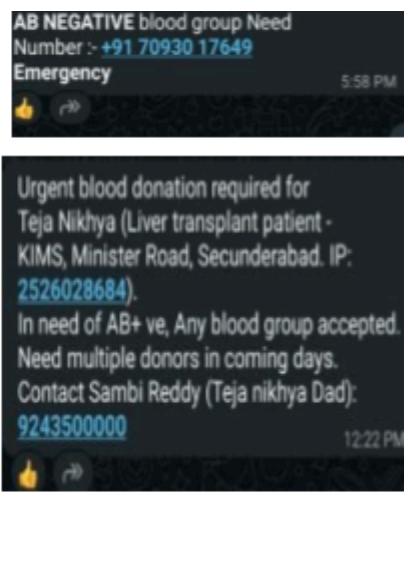
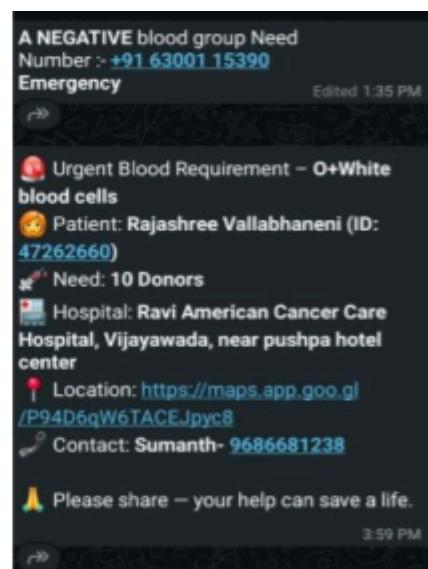
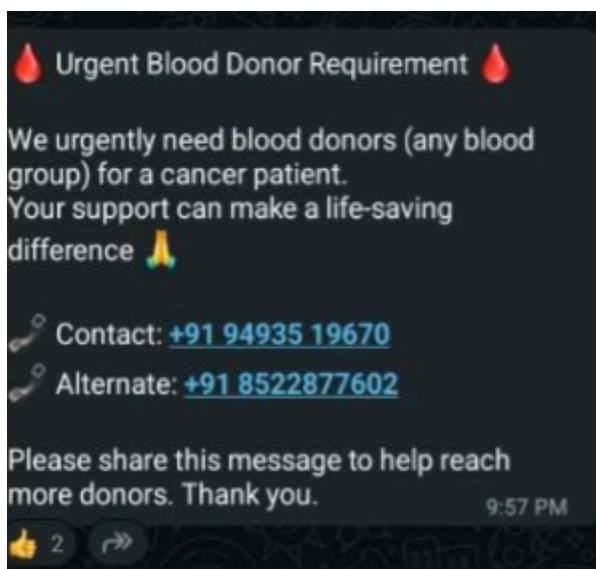
SOCIAL MEDIA & GROUND REALITY

Real Blood Requests from Local Area

During emergencies, people increasingly rely on **social media platforms** such as WhatsApp, Facebook, and Instagram to seek blood donors.

Common characteristics of these posts:

- High urgency (“needed within hours”)
- Repeated forwarding
- No centralized verification
- Lack of structured information



GOOGLE FORM DATA & SUMMARY

Public Survey (Google Form) Responses

To validate the issue further, a **local survey** was conducted to understand public awareness and experience related to blood availability.

Timestamp	Email address	Column 3	Name	Professor	Q1. Have you ever heard of a person who needs a blood group? (Yes/No)	Q2. What's his/her last name, what is he/she?	Q3. Have you ever donated blood?	Q4. If yes, when did you last donate?	Q5. How many times have you donated blood?	Q6. Do you know about blood donation camps?	Q7. Do you know about blood donation camps in your area?	Q8. If blood donation and information were clear, I'd do it. Your blood group?
20/1/2026 20:10:00	anmolsharma9@gmail.com	Rajesh	Student	Yes, personally	Blood group not available in nearby blood banks	No	No aware of nearby blood donation camps	No, but I am willing to donate	No, definitely	No	No aware of nearby blood donation camps	Yes, definitely
20/1/2026 20:14:40	shubhamkumar76071713	Shubham Kumar	Student	Yes, through news / social media	Delay in getting correct information	No, but I am willing to donate	Lack of proper information or guidance	No, but I am willing to donate	No, definitely	AB+	No aware of nearby blood donation camps	No, definitely
20/1/2026 20:14:49	purnima942012@gmail.com	Dhara Gavesh	Student	Yes, through news / social media	Blood group not available in nearby blood banks	No, but I am willing to donate	Lack of proper information or guidance	No, but I am willing to donate	Maybe	B positive	No aware of nearby blood donation camps	No, maybe
20/1/2026 20:15:34	lakshay1234@gmail.com	Lakshay	Student	No	Lack of contact or coordination	No	Already Donated	No	Maybe	AB+	No aware of nearby blood donation camps	No, maybe
20/1/2026 20:15:43	kumud9404@gmail.com	Soni	Student	Yes, through news / social media	Delay in getting correct information	No, but I am willing to donate	Lack of proper information or guidance	No, but I am willing to donate	No, definitely	O+	No aware of nearby blood donation camps	No, definitely
20/1/2026 20:17:11	prashant_0709@gmail.com	Prashant	Student	Yes, through news / social media	Blood group not available in nearby blood banks	No, but I am not willing to donate	No aware of nearby blood donation camps	No	Maybe	A+	No aware of nearby blood donation camps	No, maybe
20/1/2026 20:18:08	hanshihuddubalku@gmail.com	Hanshihuddubalku	Student	Yes, through news / social media	Blood group not available in nearby blood banks	No	Never got anyone opportunity	No, but I am willing to donate	No, definitely	O+	No aware of nearby blood donation camps	No, maybe
20/1/2026 20:18:41	varun_pandey99@gmail.com	Varun Pandey	Student	Yes, through news / social media	Dependence on social media / personal contacts	No, and I am not willing to donate	No aware of nearby blood donation camps	No	Maybe	B+	No aware of nearby blood donation camps	No, maybe
20/1/2026 20:18:57	varshikabhattam9999@gmail.com	Varshika Bhattam	Student	Yes, personally	Blood group not available in nearby blood banks	No	No aware of nearby blood donation camps	No, but I am willing to donate	No, definitely	O+	No aware of nearby blood donation camps	No, maybe
20/1/2026 20:19:37	hanshihuddubalku@gmail.com	Hanshihuddubalku	Student	Yes, personally	Blood group not available in nearby blood banks	No, but I am not willing to donate	No aware of nearby blood donation camps	No	Maybe	O+	No aware of nearby blood donation camps	No, maybe
20/1/2026 20:20:47	thushar_gupta9999@gmail.com	Thushar Gupta	Student	Yes, through news / social media	Blood group not available in nearby blood banks	No, and I am not willing to donate	Never got anyone opportunity	No	No	B positive	No aware of nearby blood donation camps	No, maybe
20/1/2026 20:20:53	umangkumar9999@gmail.com	Umang Kumar	Student	No	Delay in getting correct information	No, but I am willing to donate	Lack of proper information or guidance	No	Definitely	A+	No aware of nearby blood donation camps	No, maybe
20/1/2026 20:20:48	varshikapandey9999@gmail.com	Varshika Pandey	Student	No	Blood group not available in nearby blood banks	No, and I am not willing to donate	No aware of nearby blood donation camps	No	Maybe	B+	No aware of nearby blood donation camps	No, maybe
20/1/2026 20:21:45	vinit12345@gmail.com	Vinit	Student	No	Blood group not available in nearby blood banks	No, and I am not willing to donate	No aware of nearby blood donation camps	No	No	A+	No aware of nearby blood donation camps	No, maybe
20/1/2026 20:21:46	gokul99@gmail.com	Gokul Das	Student	Yes, through news / social media	Blood group not available in nearby blood banks	No, and I am not willing to donate	No aware of nearby blood donation camps	No	Maybe	A+	No aware of nearby blood donation camps	No, maybe
20/1/2026 20:21:57	pragya9999@gmail.com	Pragya Singh	Student	Not sure	Blood group not available in nearby blood banks	No, but I am willing to donate	No aware of nearby blood donation camps	Maybe	No	O+	No aware of nearby blood donation camps	No, maybe
20/1/2026 20:12:12	anushka1712@gmail.com	Anushka	Student	Yes, through news / social media	Blood group not available in nearby blood banks	No, but I am willing to donate	Never got anyone opportunity	No	No	O+	No aware of nearby blood donation camps	No, maybe
20/1/2026 20:18:03	raghav9619@gmail.com	Raghav Singh	Student	Yes, personally	Dependence on social media / personal contacts	No, and I am not willing to donate	No aware of nearby blood donation camps	No	Maybe	B+	No aware of nearby blood donation camps	No, maybe
20/1/2026 20:19:23	anil_kumar1707@gmail.com	Anil Kumar Singh	Student	Yes, through news / social media	Delay in getting correct information	No, but I am willing to donate	Lack of proper information or guidance	No	Definitely	B+	No aware of nearby blood donation camps	No, maybe
20/1/2026 20:19:43	anugraha9999@gmail.com	Anugraha Singh	Student	Yes, personally	Dependence on social media / personal contacts	No, but I am not willing to donate	Never got anyone opportunity	No	Definitely	B+	No aware of nearby blood donation camps	No, maybe
20/1/2026 20:19:51	krishna_kumar1707@gmail.com	Krishna Kumar	Student	Yes, through news / social media	Blood group not available in nearby blood banks	No, but I am willing to donate	No aware of nearby blood donation camps	No	Maybe	O+	No aware of nearby blood donation camps	No, maybe
20/1/2026 20:19:55	srivatsav9999@gmail.com	Srivatsav	Student	Yes, personally	Dependence on social media / personal contacts	No, and I am not willing to donate	No aware of nearby blood donation camps	No	Maybe	O+	No aware of nearby blood donation camps	No, maybe
20/1/2026 20:19:57	siddhantshukla9821@gmail.com	Siddhant Shukla	Student	Yes, personally	Blood group not available in nearby blood banks	No, but I am willing to donate	No aware of nearby blood donation camps	Maybe	No	O+	No aware of nearby blood donation camps	No, maybe
20/1/2026 20:20:01	anushka1712@gmail.com	Anushka	Student	Yes, personally	Blood group not available in nearby blood banks	No, but I am willing to donate	Never got anyone opportunity	No	No	O+	No aware of nearby blood donation camps	No, maybe
20/1/2026 20:20:03	krishna_kumar1707@gmail.com	Krishna Kumar	Student	Yes, personally	Blood group not available in nearby blood banks	No, but I am willing to donate	No aware of nearby blood donation camps	No	Maybe	O+	No aware of nearby blood donation camps	No, maybe
20/1/2026 20:20:25	pratiksha9999@gmail.com	Pratiksha	Student	Yes, personally	Dependence on social media / personal contacts	No, and I am not willing to donate	No aware of nearby blood donation camps	No	Definitely	B+	No aware of nearby blood donation camps	No, maybe
20/1/2026 20:20:35	anushka1707@gmail.com	Anushka	Student	Yes, personally	Blood group not available in nearby blood banks	No, but I am not willing to donate	No aware of nearby blood donation camps	No	Maybe	O+	No aware of nearby blood donation camps	No, maybe
20/1/2026 20:20:36	anushka1707@gmail.com	Anushka	Student	No	No system	No, and I am not willing to donate	Never got anyone opportunity	No	No	O+	No aware of nearby blood donation camps	No, maybe
20/1/2026 20:20:36	pratiksha9999@gmail.com	Pratiksha	Student	Yes, through news / social media	Blood group not available in nearby blood banks	No, but I am willing to donate	Never got anyone opportunity	No	Definitely	A+	No aware of nearby blood donation camps	No, maybe
20/1/2026 20:20:40	anushka1707@gmail.com	Anushka	Student	No	No system	No, and I am not willing to donate	No aware of nearby blood donation camps	No	No	O+	No aware of nearby blood donation camps	No, maybe
28/1/2026 08:02:49	hanshihuddubalku@gmail.com	Hanshihuddubalku	Student	Yes, through news / social media	Blood group not available in nearby blood banks	No, but I am willing to do	Blood group not available in nearby blood banks	No, but I am willing to do	No, definitely			
28/1/2026 08:44:15	anupriyalapsingh054018	Praveen Singh	Student	Not sure	Vip system	No, and I am not willing to	Blood group not available in nearby blood banks	No, but I am not willing to do	No, definitely			
28/1/2026 09:02:29	prachi9592904@albhar	Prachi Singh	Student	Yes, through news / social media	Blood group not available in nearby blood banks	No, but I am not willing to do	Blood group not available in nearby blood banks	No, but I am not willing to do	No, definitely			
28/1/2026 09:05:35	manas_garkapati@smu.edu	Manas	Student	Yes, through news / social media	Lack of contact or coordination	No, but I am not willing to	No aware of nearby blood donation camps	No, but I am not willing to do	No, definitely			
28/1/2026 09:44:29	muskanasingh4011@gmail.com	Muskan Singh	Student	Yes, through news / social media	Delay in getting correct information	No, but I am not willing to do	No aware of nearby blood donation camps	No, but I am not willing to do	No, definitely			
28/1/2026 09:46:51	muskan.singh@smu.edu	Muskan	Student	Yes, through news / social media	Lack of contact or coordination	No, but I am not willing to do	No aware of nearby blood donation camps	No, but I am not willing to do	No, definitely			
28/1/2026 09:49:26	manyashrivasay997@gmail.com	Manyashrivasay	Student	Yes, through news / social media	Blood group not available in nearby blood banks	No, but I am not willing to do	Blood group not available in nearby blood banks	No, but I am not willing to do	No, definitely			
28/1/2026 10:15:10	rahul_kusuma@ormap.edu.in	Kusuma Rahul	Student	Yes, personally	Lack of contact or coordination	No, but I am not willing to do	Blood group not available in nearby blood banks	No, but I am not willing to do	No, definitely			
28/1/2026 10:16:01	manyashrivasay997@gmail.com	Manyashrivasay	Student	Yes, personally	Blood group not available in nearby blood banks	No, but I am not willing to do	Blood group not available in nearby blood banks	No, but I am not willing to do	No, definitely			
28/1/2026 10:17:37	aditi9999@gmail.com	Aditi Gupta	Student	Yes, through news / social media	Blood group not available in nearby blood banks	No, but I am not willing to do	Blood group not available in nearby blood banks	No, but I am not willing to do	No, definitely			
28/1/2026 10:17:50	indrakshi_panda@ormap.edu.in	Indrakshi Panda	Student	Yes, through news / social media	Blood group not available in nearby blood banks	No, but I am not willing to do	Blood group not available in nearby blood banks	No, but I am not willing to do	No, definitely			
28/1/2026 10:25:37	pratik9999@gmail.com	Pratik	Student	Yes, through news / social media	Blood group not available in nearby blood banks	No, but I am not willing to do	Blood group not available in nearby blood banks	No, but I am not willing to do	No, definitely			
28/1/2026 10:38:53	chhavyad48@gmail.com	Bhavya Chauhan	Student	Yes, personally	Blood group not available in nearby blood banks	No, but I am not willing to do	Blood group not available in nearby blood banks	No, but I am not willing to do	No, definitely			
28/1/2026 10:39:16	jayanarainha232@gmail.com	Polla Jaya Narainha	Student	Yes, through news / social media	Delay in getting correct information	No, but I am not willing to do	Dependence on social media / personal contacts	No, but I am not willing to do	No, definitely			
28/1/2026 11:05:07	omt307270@gmail.com	Om Tripathi	singer	Yes, through news / social media	Blood group not available in nearby blood banks	No, but I am not willing to do	Blood group not available in nearby blood banks	No, but I am not willing to do	No, definitely			
28/1/2026 11:06:51	soothchapping53@gmail.com	Sonu Singh	Book reading	Yes, through news / social media	Blood group not available in nearby blood banks	No, but I am not willing to do	Blood group not available in nearby blood banks	No, but I am not willing to do	No, definitely			
28/1/2026 11:08:03	agneswadhik@gmail.com	Riya Tiwari	Traveling	Yes, through news / social media	Blood group not available in nearby blood banks	No, but I am not willing to do	Blood group not available in nearby blood banks	No, but I am not willing to do	No, definitely			
28/1/2026 11:08:48	ajmerad18@gmail.com	Riya Tiwari	Traveling	Yes, through news / social media	Blood group not available in nearby blood banks	No, but I am not willing to do	Blood group not available in nearby blood banks	No, but I am not willing to do	No, definitely			
28/1/2026 11:09:17	hemanshu2008@gmail.com	Hemanshu	Student	Yes, through news / social media	Lack of contact or coordination	No, but I am not willing to do	Blood group not available in nearby blood banks	No, but I am not willing to do	No, definitely			
28/1/2026 11:10:40	worldlovers@gmail.com	Rajeev Tripathi	Politics	Yes, through news / social media	Lack of contact or coordination	No, but I am not willing to do	Blood group not available in nearby blood banks	No, but I am not willing to do	No, definitely			
28/1/2026 11:19:35	shauryandyash@gmail.com	Shaurya Mihira	Student	Yes, through news / social media	Blood group not available in nearby blood banks	No, but I am not willing to do	Blood group not available in nearby blood banks	No, but I am not willing to do	No, definitely			

This is the data which we have collected within 24 hr this data shows:

- Many are **willing to donate** but lack information
- There is **no centralized awareness platform**