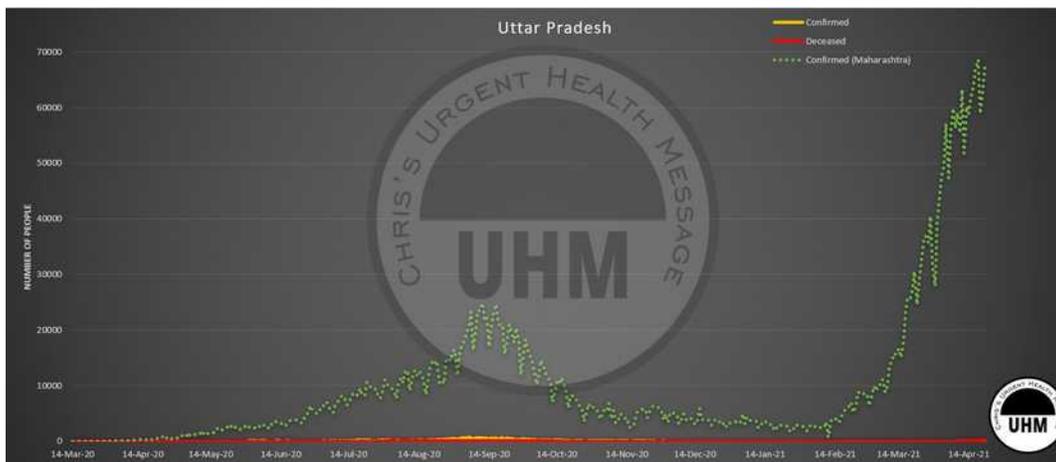
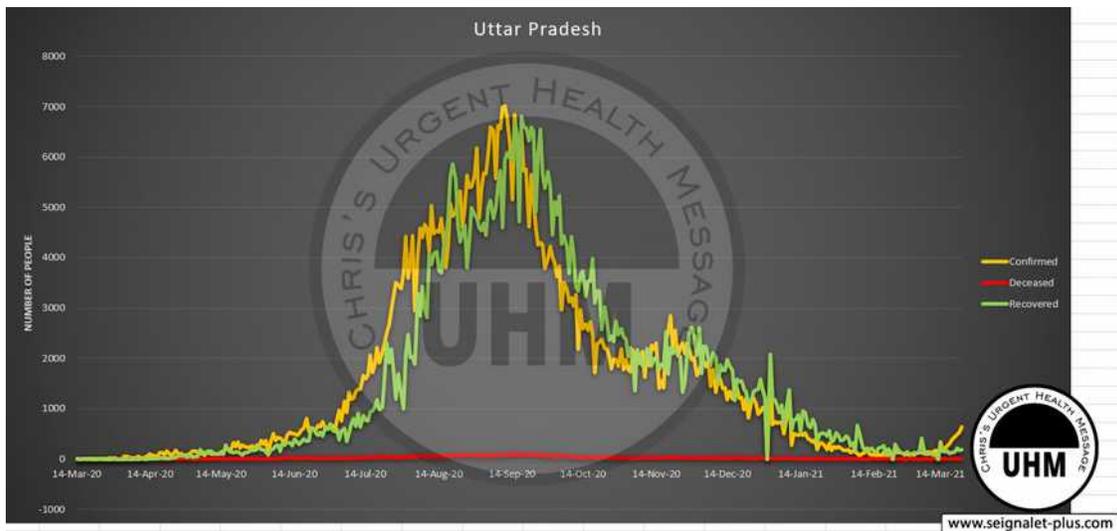
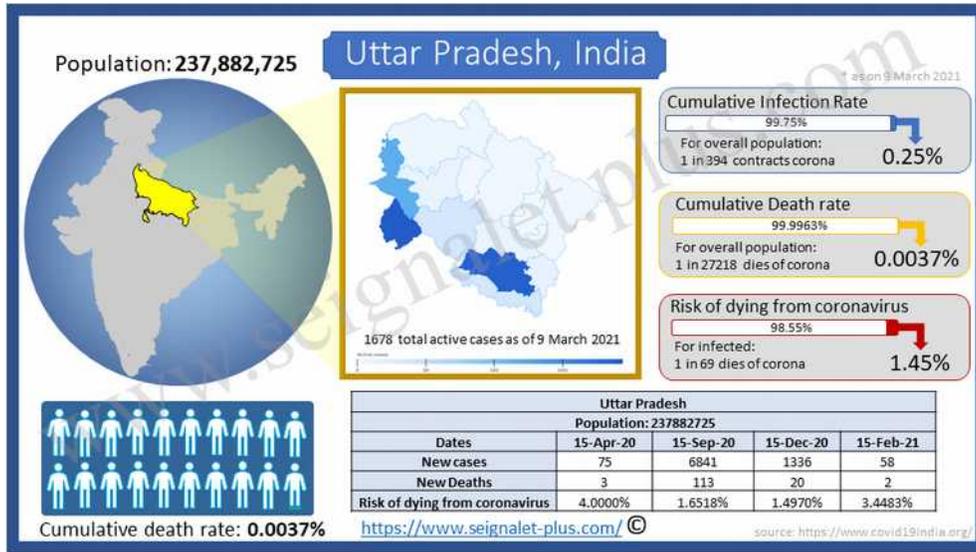
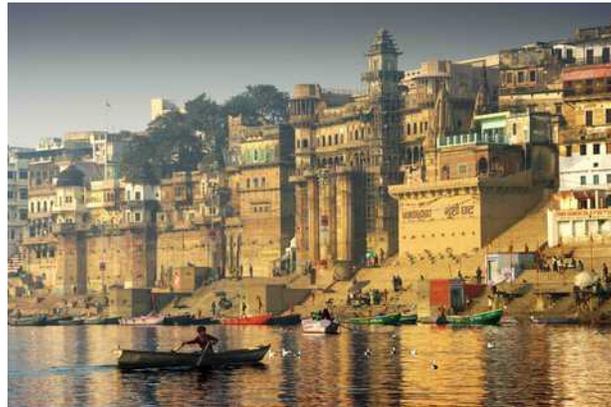


State name – **Uttar Pradesh(UP)** see Chris’s comments at the end



State name **Uttar Pradesh(UP)**



Average serum vitamin d: 17 ng/ml (severely deficient)

(Severely deficient (less than 20 ng/ml), Deficient (less than 30 ng/ml), Sufficient (above 30 ng/ml), Highly sufficient (above 35 ng/ml))

Coronavirus Statistics to 15th February 2021

Population 238million (English system) 23.8crore (Indian system)

| | | |
|--|------------|--------------------------------------|
| Infection rate | 1 in 394 | 2 nd lowest in India |
| Cumulative death rate from coronavirus | 1 in 27218 | 18 th highest in in India |
| Death rate among those infected | 1 in 69 | 12 th highest in India |

Chris’s weighting system to explain number of infections and mortalities

Average temperatures

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------------|-----|------|------|------|------|------|------|------|------|------|------|------|
| Daytime C° | 21 | 25 ° | 31 ° | 37 ° | 39 ° | 37 ° | 32 ° | 31 ° | 31 ° | 31° | 27 ° | 23 ° |
| °F | 70 | 77 | 89 | 100° | 103° | 99 | 90 | 89 | 89 | 88 | 82 | 73.° |
| Night °C | 9 | 12 | 16° | 22 ° | 26 ° | 28 ° | 26 ° | 25 ° | 24 ° | 20 ° | 15 ° | 10 ° |
| °F | 48 | 53 ° | 62 ° | 72 ° | 79 ° | 82 ° | 79 ° | 78 ° | 76 ° | 68 ° | 59 ° | 50.° |

Wikipedia: “...The climate of Uttar Pradesh (U.P.) is primarily defined as humid subtropical with dry winter (Cwa) type with parts of Western U.P. as hot semi-arid (BSh) type. Alternatively, some authors refer to it as tropical monsoon. Variations do exist in different parts of the large state, however the uniformity of the vast Indo-Gangetic Plain forming bulk of the state gives a predominantly single climatic pattern to the state with minor regional variations. U.P. has a climate of extremes. With temperatures fluctuating anywhere from 0 °C or 32 °F to 50 °C or 122 °F in several parts of the state and cyclical droughts and floods due to unpredictable rains, the summers are extremely hot, winters cold and the rainy season can be either very wet or very dry...”

| | |
|-------------------------------|---|
| Main Monsoon (whole of India) | Winter Monsoon (Affects South East India) |
| X | |

| | | |
|------------------------|----------------------------|------------------------|
| Percentage tobacco use | Average for India as whole | Position among states |
| 35.5% | 28% | 11 th worst |

Air Pollution levels

| | | |
|-----|--------|----------|
| Low | Medium | High |
| | | X |

[Report November 2020](#) “..Air Pollution worst in Uttar Pradesh; 3 among 5 most polluted cities in the country from UP..”

Statistics taken from [The India State-Level Disease Burden Initiative](#)

| Uttar-Pradesh | | | India as a whole (average of all the states) | |
|------------------------------|--|------------------------------|--|------------------------------|
| | Chronic obstructive pulmonary disease (COPD) | Lower respiratory infections | Chronic obstructive pulmonary disease (COPD) | Lower respiratory infections |
| Years of life lost | 6.5 | 8 | 4.7 | 6.3 |
| Ranking among other diseases | 4 | 2 | 6 | 3.6 |

Average serum vitamin d of population

| | | | | |
|---|--------------------------------|-----------------------------|------------------------------------|-------------------|
| Severely deficient (less than 20 ng/ml) | Deficient (less than 30 ng/ml) | Sufficient (above 30 ng/ml) | Highly sufficient (above 35 ng/ml) | No data available |
| x | | | | |

| | | | | | |
|------------|-------------------|------------------------|-----------------------------|---------------------|------------------|
| Farming | Forestry, logging | Coal and steel, mining | Commercial/Government metro | Manufacturing metro | ITHub (City) |
| x | x | | x | x | X(medium) |
| Tribal | Power generation | Handicrafts | Shipbuilding | Tourism | |
| 0.5 | | x | | x | |

State share of in migration and out migration based on [2001 census](#) – page 15
 figures are rounded up

| Uttar Pradesh | In migrants | Out migrants | Share of in - all India migration % | Share of out – all India migration % |
|---------------|--------------|--------------|-------------------------------------|--------------------------------------|
| | 1.08 million | 3.80 million | 6.5 | 22.9 |

| Intensive (to entire population) | To small number of people(In contaminated zones/ In few cities) | Mainly to “warriors” (police, health workers etc.) | No distribution of Ayush medicines |
|----------------------------------|--|--|------------------------------------|
| | | | x |

Mass distribution of preventative allopathic medicines like Ivermectin to the population

| Yes | No |
|-----|----|
| X | |

Sale of coronil allowed

| Yes | No |
|-----|----|
| X | |

[Human development Index](#) (HDI is a composite index that takes into consideration (1) health, (2) Education and (3) Per capita income.)

| HDI for this state | Position among states (starting from best position) | India’s HDI (average of all the states) |
|--------------------|---|---|
| 0.596 | 35 | 0.519 |

[Percentage of slum dwellers in population](#) (see page 14): 2% 15th worst in India

Treatment of severe infections

| Plasma therapy | Cuban interferon | Other Innovative allopathic | Standard therapy only (as in UK or US) |
|----------------|------------------|-----------------------------|--|
| X | | | |

Types of traditional Indian medicine used in that State (Ayurveda, Sidha, Unani, Tibetan, Folk, other etc)

[Plant used in primary health practices in Vindhya Region of Eastern Uttar Pradesh, India](#)

“Plant species have long been used as principal ingredients of traditional medicine in the Vindhya region of Eastern Uttar Pradesh in India. This paper addresses the integration of herbal medicine into a public health. The present study has resulted in the documentation of 61 medicinal plant species used by tribal communities into different disease groups like diabetes, wound healing, jaundice, kidney disorder and tuberculosis. Plant species Aegle marmelos (L.) (100%) secure highest FL and Jaundice aliment (0.85) secure highest ICF value. Ethnobotanical study of the Vindhya region of Uttar Pradesh in India explores the importance of traditional medicine to human health and suggested that clinical approaches is needed to evaluate the biochemical parameters of herbal medicine. Tribes in UP were using wild plants as medicine some of the plants are :(scientific names) Abrus precatorius , Abutilon indicum (Linn.) Sweet, Terminalia arjuna Wight & Arn etc..”

Medicine distributed by the state or NGO.

[Report 22 August 2020 The Hindustan Times](#)

Ivermectin tablets distribution centre were setup in Lucknow(city) for Asymptomatic covid patients.

“...Lucknow’s district administration will set up around 40 kiosks across the city to ensure free distribution of Ivermectin tablets among asymptomatic Covid-19 patients....”

“...“Initially, all the entry and exit points of the city would be covered. It would largely include all four bus stations, railway stations, the airport and the highway entries and exits, ”

“... The tablets would be given on the basis of the symptoms or if anyone has come in contact with a Covid-19 patient....”

[Report 8 August 2020 DNA India](#) Ivermectin a go go!

“...The Uttar Pradesh government has approved the use of ivermectin tablet for the treatment and prevention of COVID-19.

This drug will be used as a replacement for hydroxychloroquine.

The drug will also be given to frontline health workers in COVID-19 hospitals, apart from people infected with COVID-19 and their contacts...”

[Youtube video : \(language:hindi, no subtitles\)](#)

Bilquees Bibi Medical store in Bareilly(city) distributed free medicines(prescribed) to all their customers

[Report 18 March 2021, Newsroom Post](#)

Gov decided to distribute(not free) immunity boosting’ fortified rice to people. This was not done to cope with covid. UP has large population of malnourished children so to provide nutrition Gov will add minerals and vitamins to rice and make this rice available to them.

Medicine details

Intensive, Free distribution of Ivermectin tablets at key points in Lucknow: Reported on: AUG 22, 2020 and widely used throughout UP as prophylactic and early stage treatment.

Details of Traditional medicine and other treatment given in hospitals

[Report 08 Dec 2020, Jagran](#)

(Report in Hindi, wait for google to translate into English). Trial of ayurvedic medicine was conducted. Patients were divided into 3 groups. Group 1 was given dry ginger powder and raw garlic in the morning and evening, Group 2 was given a polyherbal ayurvedic decoction and group 3 were given nothing. Group 1 were negative in 5/6 days, Group 2 were negative in 7 to 9 days. In Group 3 the infection continued. The trial was criticized as not scientifically valid (not double blind with controls given placebo etc.). A new trial was announced but I have found no details of this second trial.

[Report 19 Jul 2020, Amar Ujala](#)

Ayurvedic medicines were used for treating Coronavirus patients in Varanasi. Medicines were also given to family members of covid patients to build their immunity

Medicine 1:

for patients: [पंचगव्य घृ](#) (Panchagavya Ghrita-Ith) is ayurvedic formulation made from Cows by processing ghee with milk, curd, urine and dung extract.

[गोजिहादी क्वाथ](#) (Gojihawadi kawathya) Gojihwadi Kashaya is an Ayurvedic medicine made from 16 herbs in water decoction form. It is used in the treatment of fever & cough.

[शिरीषादी क्वाथ](#) (shisrishadi kawathya Shirishadi Kwath have nine herbal contents with mainly blood purifying effect

शुं ठैघूर्ण(sunthi churna[Dehydrated ginger])

[संजीवनी वटी](#) (sanjivini vati: Sanjivani Vati (Sanjeevani Gutika) is an antipyretic and diaphoretic ayurvedic medicine made by 10 herbs in cow urine Q.S

For family members of patient: शुं ठैघूर्ण(sunthi churna)(Dehydrated ginger)

Medicine 2: Sunth powder (Dehydrated Ginger), Raw garlic and kadha

For severe cases

[Report 20 July 2020, India Today](#)

Plasma therapy was used : *UP: Agra begins plasma therapy on serious Covid-19 patients*

Medicine 1: Reported on- 19 Jul 2020

Medicine 2: Reported on- 08 Dec 2020

Plasma therapy: Reported on July 20, 2020

[Report 23rd October 2020, The Indian Express](#)

“...The experts of the Indian Council of Medical Research’s National Task Force for COVID-19 and the Joint Monitoring Group held its meeting on Thursday to deliberate on whether the drug should be included in the national treatment guidelines.

"Following deliberations, experts decided not to include Ivermectin in the national clinical management protocol for COVID-19 because of lack of sufficient evidence on its efficacy based on randomised trials held in India and abroad," a source said....”

Date vaccination started 16 January 2020

Vaccines used

Covishield and Covaxin (Numbers not mentioned)

Side effects

No reports found of severe side effects

Deaths

Two reports found; no collective data of deaths available

[A ward boy\(age:46\) 18 Jan](#) : *Ward Boy, 46, Dies Day After Taking Shot of Covishield Vaccine in UP's Moradabad*

and [a man\(38\) 17march](#) : *COVID-19 in Uttar Pradesh: 38-year-old man dies two days after taking vaccination jab*

Numbers vaccinated

1,711,376 received first dose, 538,549 second. Among the second dose recipients are 512,107 health workers, till MAR 12, 2021

[Report 12 March 2021, The Hindustan Times](#)

Uttar Pradesh: Covid vaccination in full swing, crosses 22-lakh mark

[Report 12 March 2021, Live Mint](#)

Uttar Pradesh first state to vaccinate over 20 lakh(2 million) people: Govt

Chris's comments

Infection rate

1 in 394. The second lowest in India. Many studies prove that with a sufficiency of vitamin d you will not even get infected, yet alone die. But people in Uttar Pradesh, like in most other Indian states and Union Territories are severely deficient. The mean serum vitamin d level is 17 ng/ml. This is a mean of several different studies. [One study](#) of hospital staff in Lucknow found that 20% of them had less than 5 ng/ml! [In another study](#) in Varanasi in healthy men over 50 the mean level was a less alarming 19 ng/ml. 17 ng/ml is a mean from 7 studies in Uttar Pradesh listed in

[“Lower levels of vitamin D are associated with SARS-CoV-2 infection and mortality in the Indian population: An observational study by Padhi et al 2020”](#).

(Why are Indians in general so vitamin d deficient when there is abundant sunshine? The abundant sunshine is actually the reason. In most states, apart from a couple of months in the year, it's too hot to go out at mid day and the afternoon when the UVB rays which produce vitamin d in the skin are hitting the earth. Then there are 4 months of monsoon. Not exactly conducive to sunbathing! For most of their history on this earth, Indians, like all other humans would have been hunter gatherers and would have been out in the midday sun much more. So their skin evolved dark pigmentation to protect the skin. In modern times their darker skin is a hindrance to producing vitamin d.)

This super low level of infection compared to other India States and Union Territories is another Indian miracle like in similarly severely vitamin d deficient Rajasthan. But this time the miracle is due not to intensive and widespread distribution of a super, 60 ingredient kadha, but instead to a very efficient and highly organised distribution of the anti parasitic drug Ivermectin. Kiosks were set up all over Lucknow to distribute Ivermectin tablets free of charge to anyone who wanted them. Ivermectin is [controversial](#). To this particular conspiracy theorist it seems that the medical establishment is deliberately suppressing it. It's another case of phoney studies and manipulation, similar to that with vitamin d and high dose vitamin c intravenous which prevents the need for intensive care.

For example, in October the experts of the Indian Council of Medical Research's (ICMR) National Task Force for COVID-19 met and decided “..not to include Ivermectin in the national clinical management protocol for COVID-19 because of lack of sufficient evidence on its efficacy based on randomised trials held in India and abroad...” I wonder if anyone in Uttar-Pradesh believes this? How much influence does Gates have on the ICMR?

“..A large majority of randomized and observational controlled trials of ivermectin are reporting repeated, large magnitude improvements in clinical outcomes. Numerous prophylaxis trials demonstrate that regular ivermectin use leads to large reductions in transmission. Multiple, large “natural experiments” occurred in regions that initiated “ivermectin distribution” campaigns followed by tight, reproducible, temporally associated decreases in case counts and case fatality rates compared with nearby regions without such campaigns...” [Review of the Emerging Evidence Demonstrating the Efficacy of Ivermectin in the Prophylaxis and Treatment of COVID-19](#) Kory et al April 2021

2 other, counter-intuitive reasons for low infection rate and one more rational reason

1. High level of respiratory infection

There may be 2 other counter-intuitive reasons for the low rate of infection. Similar to Rajasthan, UP has a very high level of lung disease due to air pollution. [Microscopic particulate matter](#) aka dust particles causes respiratory infections. UP citizens have an estimated 8 years of life lost caused due to respiratory infections. At first sight it would seem that this would predispose them to more coronavirus infections but prior respiratory infections may actually be conferring some degree of immunity. [Cross-immunity between respiratory coronaviruses may limit COVID-19 fatalities](#) Yaqinuddin November 2020: “... perhaps prior exposure to one virus could confer partial immunity to another. Indeed, data suggests a considerable amount of cross-reactivity and recognition by the hosts immune response between different coronavirus infections..” As in Rajasthan, in addition to possible conferred immunity from previous respiratory infections, people in Uttar Pradesh would be well versed in making Kadha and other ayurvedic remedies to protect themselves from infection. (See interview with Anshul)

2. High levels of smoking

Tobacco use (35%) is above the Indian average (28%). While smoking is associated with more severe outcomes among the infected: “...*The progression group had a significantly higher proportion of patients with a history of smoking than the improvement/stabilization group...*” [Analysis of factors associated with disease outcomes in hospitalized patients with 2019 novel coronavirus disease](#) Liu et al 2020

....it may offer some protection against initial infection:

“.... *In conclusion, the analysis of data from 18 studies shows a much lower percentage of hospitalised current smokers than expected....*” [A Systematic Review and Meta-Analysis of Hospitalised Current Smokers and COVID-19](#) González-Rubio et al 2020

3. High consumption of Kadha.

See the interview with Anshul

Death rate among those infected

Uttar Pradesh did not perform so well when the disease progressed to severe. The death rate among infected was 1 in 69, the 12th highest in India. Because infection rates were so low, the cumulative death rate was 18th highest in India, so mid range. I can find no reports on what treatment was given to severe cases apart from a report from July 2020 stating that plasma therapy was now being used (as in all Indian states and UT's). So it's difficult to know what was going on in the hospitals for severe cases. I don't know what drugs were being used for example. As in Rajasthan which has a similar very high level of lung disease, citizens of UP have much higher levels of Chronic obstructive pulmonary disease COPD (bronchitis and emphysema) than the national average due to the high levels of air pollution so I think this may be the main factor influencing the high death rate.

Interview with Anshul – citizen living in Lucknow

I want to talk about what happened in the lockdown in Uttar Pradesh. You are in Agra I think? Is that correct?

I am from Agra but right now I am in Lucknow. I have a job here.

OK. Were you in Lucknow during the lockdown in April, May, June, July last year?

Yes, I was in Lucknow only

OK. Was any ayurvedic medicine distributed around that time? I mean by NGO's or the state government or private individuals.

There was no medicine distribution as such was made that time. No distribution at all. Only few allopathic medicine were provided to Covid Positive patients and there close contacts. *(Chris's note: I think he is referring to distribution of Ivermectin)*

OK. Was there any information coming from the state government about what to do?

Regarding what?

Like recommendations to use particular ayurvedic or homeopathic medicine?

There were lockdown guidelines issued by state government. In India, there is a ministry called AYUSH.

Yes. I know.

It is related to Ayurveda and similar form of medicine.

Yes. I know all about it.

They have issued certain guidelines related to KADHA and all. But they have not recommended any ayurvedic medicine as such.

That's incorrect. They recommended Kadha.

Thats what I said.

Sorry. I did not see your post about Kadha. Did you take kadha yourself?

They have issued guidelines related to Kadha, which can be prepared at home. Yes.

Were you taking anything else?

Even I took it day before yesterday.

Interesting! Because there is a new spike in India. Right?

Kadha is not new for us Indians, I am taking Kadha from my childhood days.

Yes.

All Indians take Kadha for colds and flu. My mother used to prepare when someone in my home feels cold and cough.

Right. Do you take Chyawanprash?

Yes, but only in winters.

So you didn't take it last year during lockdown?

Not during May June, but I took it from December to February. This year or last year? Dec 2020 to Feb 2021.

Right. Do you take chyawanprash every December to Feb. Or just this last?

Usually, in every winters.

OK.

Most Indians do.

Right.

December to February is not fixed, it depends on weather. Yes, most indians do. It keeps the body warm from inside.

Were you taking kadha every day during the lockdown last year?

Not only everyday, twice a day.

Interesting! Was everyone else doing that? Your friends and family?

But as the fear goes out, quantity and frequency reduced.

You were making it from scratch right?

Most of them were taking Kadha on regular basis. Yes, from scratch.

So you brew the kadha, drink it once in the morning and then have some later in the day?

No not like, it is prepared fresh every time.

(I'll explain the reason for all the questions in a minute). Ok. How do you make it? If you don't know the English words Hindi is ok. I can use google translate after.

It is good if you have the kadha fresh and hot.

OK.

The recipe is simple. First boil the water. Add some ginger. Tulsi leaves. Jaggery. A pinch of turmeric. Black pepper. 2-3 cloves. Brew it for 10 mins. So that's it.

Everyone has their own personal recipe. Right?

Yeah, that's it. Exactly, there is no standard method to prepare kadha.

What about coronil?

It's an Ayurvedic medicine. And a quite controversial medicine also.

What do you think about it?

It is not recommended by any ministry or authority. See it is the product of Patanjali, which is the company of Yoga Guru Ramdev Baba.

Not quite correct. It's recommended as an "immune booster" but not as a covid cure. What are your views on Baba Ramdev?

Yes true, It is an Immunity booster, but I am not sure if any authority has recommended it.

OK. What's important is what you think. For the purposes of this interview.

People in India follows Ramdev Baba, they believe that his product are good for their health and not adulterated. so In my opinion, one can take Coronil as a Immunity booster and even as Covid Cure, if the case is not much critical. Because doctors are also not having any cure for covid.

Did you ever buy some coronil?

No, I haven't buy coronil.

What about people you know?

Yes, I know some people who have bought it.

Did they take it to prevent coronavirus or take it when they were infected? Or did they buy some just in case they needed to use it when infected?

They use it as a preventive measures, kind of immunity booster.

Did they buy it locally in Patanjali shops or online?

Locally. It is available locally in grocery shops.

Any Patanjali franchise shops in Lucknow or Agra?

So many franchise shops are there in Agra and Lucknow.

Ok, go ahead

You will understand in a minute when I tell you what it's for.

Ok, feels like a suspense thriller LOL:-)

During the lockdown in India there was a government scheme to put people who lost their jobs to work in agriculture or infrastructure projects I believe. Was there much of that going on in Uttar Pradesh?

Not as such, even the situation is worse.

What do you mean by worse situation?

You must be aware that during lockdown many daily wages workers who primarily belongs to Uttar Pradesh and Bihar had came back from the other states. They sat idle at their home during lockdown.

OK. Did any of them have gardens?

Some have started small work here and some has left again to their work. Garden???

Yes. Behind their house? You will understand in a minute.

I am not sure about that.

OK. Did they try to get some work in agriculture? Even if it was not very well paid.

I am not sure about that.

We're nearly at the end you will be pleased to know. But I believe most of them are having agriculture backgrounds. So they live in villages? Small settlements? So may be few of them never went back to their job and started farming?

Yes, they are mostly poor people from villages.

So if they had no jobs they would maybe try to grow some vegetables or something like that? If nothing else, just for themselves?

Not like that, In India, most of the people have farming land but they do not farm by their own, they give to the farmers who does not have any land but know how to grow crops and

vegetables. These migrant workers are generally the family members of such kind of farmers.

Give me a minute to take that in. It's important. So the farmers are tenant farmers. Right? They rent the land from land owners?

Yes. Mostly. And Since they were not having land of their own, they move to big cities for jobs.

And when they came back from out of state, as they had no jobs they would help their family members on the family members farm. Correct?

Because in tenant farming Income is very less.

I understand.

Yes, you get it right.

OK. We're good. Just give me a minute to think if I missed something I still need to ask.

Sure.

OK. 2 more questions. 1. How many people do you estimate were taking coronil?

As % of Country population or ???

Just like 1 in among your acquaintances.

I know some 5-6 families who have bought Coronil.

So quite a few.

Yeah, not much actually.

1 in how many? A guess is fine.

I don't know...1 in every 100.

Could it be more? You said you know 5-6 families who bought it.

Yeah, but I know that Coronil kit is not cheap medicine. So any one from lower middle class won't buy it. Only people of Upper class and few middle class families are buying it.

OK.

And even no doctors are recommending it, so people are buying on their own.

Right last questions then I will explain everything and put you out of your misery. ;-)

Ok. During lockdown, quite a few people were outside, doing farming work right? Even though it's very hot in Uttar Pradesh.

No, because farming is necessity and even in lockdown activities related to farming, grocery etc were allowed with precautions. And It is always hot in Uttar Pradesh during summer.

So do you think more people than usual were working outside in farming?

I would say last year was comparatively less hotter due to less pollution.

Ah. Interesting! So more people were outside?

Definitely not.

OK.

Only those who were required were outside. I don't think any person was outside unnecessarily.

Because it's so hot. Right?

Yes, and there was lockdown also. There was a fear of corona in people mind.







