



Wellness beyond the first day

*A water program that focuses on the long-term
Project Well and Aqua Welfare Society*



Members and staff of Aqua Welfare Society and Project Well

Our program

Project Well (based in USA) and **Aqua Welfare Society** (based in India) work as partners to provide safe drinking water in India, where groundwater is contaminated by arsenic. Ingesting arsenic through drinking water causes many serious and sometimes fatal health consequences, including cancers of the lung, kidney, bladder, liver and skin, various lung diseases, diabetes, and reproductive problems.

Our water sources—based on traditional dugwell designs that are familiar to villagers—are inexpensive and easy to maintain. We make these water sources sustainable by developing community-based programs so users take responsibility for their own wells. We continually monitor our water projects so if problems arise, we can address them immediately and make sure villagers can continue to use the wells. **We provide long-term guidance and assistance to users, unlike many other water projects that are installed and left unsupported.** We also educate communities and students and teachers in schools on proper sanitation and personal hygiene practices, as well as the effects of drinking arsenic- or bacteria-contaminated water.

100% of donated funds go to our work in the field, as all officers and board members provide their services *pro bono*. Project Well members also conduct research as part of the Arsenic Health Effects Research Group (ASRG) at University of California, Berkeley.

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Our program has three important dimensions: **Construction, Monitoring, and Education**. We construct bi-tech wells in the arsenic afflicted areas and honeycomb toilets in villages that lack toilet facilities.



Local raw materials and manual labourers are used, helping the local rural economy



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Maintenance and training to manage their own water supply are the two key components of successful projects.



Wells are dredged in the summer.

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Monitoring

Monitoring is essential for a successful water program. Only long-term monitoring gives a true sense of user numbers and allows for adjustments over time. If users drop suddenly, monitoring gives the program a chance to course-correct.



Our monitoring program comprises a user registry and demographic information on each user. Locations are GPS-mapped and uploaded onto a cloud-based tracking platform for water nonprofits. Arsenic analysis of water collected from the wells is done at our field office annually.

Our field workers regularly check on the wells and user communities, noting the conditions of the well water and the number of current users. They also train the communities to maintain wells until the communities can take over. Field workers are recruited from these communities and thus are trusted by users and familiar with social dynamics in their communities.



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Health outreach and training



We hold regular awareness programs to educate the community on the serious consequences of arsenic exposure, the specifics of the dugwell program, the need for community self-reliance, as well as general health and hygiene issues. We host the programs in the villages and at schools. Recently, we have incorporated blood pressure screening and eye testing camps.

Our presenters try to make the information accessible and entertaining, using various methods like film and live theater, diagrams, newsletters and pamphlets, and Powerpoint talks. After each presentation, villagers and schoolchildren are given the opportunity to ask questions.



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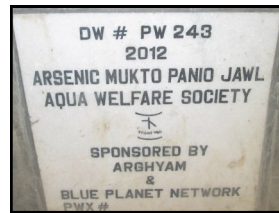
Is India Really 'Winning Its War' on Open Defecation?

The Diplomat, May 9th 2017: The “Clean India” campaign may have good results on paper, but the reality does not match the numbers. One billion people worldwide still practice “open defecation.” India alone has an estimated **600 million** people defecating openly, according to a study by the United Nations, accounting for more open defecation than any other country in the world. According to Bruce Gordon, acting coordinator for Sanitation and Health at the World Health Organization, open defecation results in the spread of a number of diseases, including cholera, diarrhea, dysentery, hepatitis A, and typhoid.

According to figures of the Health Ministry, in India, about 1.2 lakh children under the age of five succumb to diarrhoea every year. This translates to 328 diarrhoea deaths every day and 13 every hour.

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We are currently fundraising to build more toilets (Rs.10,000), bi-tech wells (Rs. 36,000, serve water to 40-100 people each) and iron removal filters (Rs. 8000). Well sponsors are acknowledged with plaques at well sites.



Donations can be made at:

<http://www.projectwellusa.org/>
<http://aquawelfaresocietyindia.weebly.com/>

Health Parameters	Normal
Temperature	98.4 ⁰ F/37 ⁰ C
Blood Pressure	120/80
Triglycerides	150
Total cholesterol	200
HDL (good)	>40
LDL (bad)	<130
	65 - 99 (USA)
Glucose serum (fasting)	70-110 (India)
Hgb A1c	4.8 - 5.9
WBC	4 -10.5
RBC	3.8 - 5.1
Haemoglobin	11.5 -15

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Status of the program

Arsenic-free Wells - Almost 10,000 people use water from 203 wells.



Toilets – We recently built 25 honey-combed toilets for 25 families who were practicing open defecation or were using open pits.

Iron Removal Filter – one iron removal filter was installed last year to remove iron and organic odors from a well, which led to 12-20 new user families.

Body Mass Index (BMI) Chart for Adults

Obese (>30)
Overweight (25-30)
Normal (18.5-25)
Underweight (<18.5)

HEIGHT in feet/inches and centimeters

WEIGHT	4'8"	4'9"	4'10"	4'11"	5'0"	5'1"	5'2"	5'3"	5'4"	5'5"	5'6"	5'7"	5'8"	5'9"	5'10"	5'11"	6'0"	6'1"	6'2"	6'3"	6'4"	6'5"
lbs (kg)	142cm	147	150	152	155	157	160	163	165	168	170	173	175	178	180	183	185	188	191	193	196	
260 (117.9)	58	56	54	53	51	49	48	46	45	43	42	41	40	39	38	37	36	35	34	33	32	31
255 (115.7)	57	55	53	51	50	48	47	45	44	42	41	40	39	38	37	36	35	34	33	32	31	30
250 (113.4)	56	54	52	50	49	47	46	44	43	42	40	39	38	37	36	35	34	33	32	31	30	30
245 (111.1)	55	53	51	49	48	46	45	43	42	41	40	38	37	36	35	34	33	32	31	31	30	29
240 (108.9)	54	52	50	48	47	45	44	43	41	40	39	38	36	35	34	33	33	32	31	30	29	28
235 (106.6)	53	51	49	47	46	44	43	42	40	39	38	37	36	35	34	33	32	31	30	29	29	28
230 (104.3)	52	50	48	46	45	43	42	41	39	38	37	36	35	34	33	32	31	30	30	29	28	27
225 (102.1)	50	49	47	45	44	43	41	40	39	37	36	35	34	33	32	31	31	30	29	28	27	27
220 (99.8)	49	48	46	44	43	42	40	39	38	37	36	34	33	32	32	31	30	29	28	27	27	26
215 (97.5)	48	47	45	43	42	41	39	38	37	36	35	34	33	32	31	30	29	28	28	27	26	25
210 (95.3)	47	45	44	42	41	40	38	37	36	35	34	33	32	31	30	29	28	28	27	26	26	25
205 (93.0)	46	44	43	41	40	39	37	36	35	34	33	32	31	30	29	29	28	27	26	26	25	24
200 (90.7)	45	43	42	40	39	38	37	35	34	33	32	31	30	30	29	28	27	26	26	25	24	24
195 (88.5)	44	42	41	39	38	37	36	35	33	32	31	31	30	29	28	27	26	26	25	24	24	23
190 (86.2)	43	41	40	38	37	36	35	34	33	32	31	30	29	28	27	26	26	25	24	24	23	23
185 (83.9)	41	40	39	37	36	35	34	33	32	31	30	29	28	27	27	26	25	24	24	23	23	22
180 (81.6)	40	39	38	36	35	34	33	32	31	30	29	28	27	27	26	25	24	24	23	22	22	21
175 (79.4)	39	38	37	35	34	33	32	31	30	29	28	27	27	26	25	24	24	23	22	22	21	21
170 (77.1)	38	37	36	34	33	32	31	30	29	28	27	27	26	25	24	24	23	22	22	21	21	20
165 (74.8)	37	36	34	33	32	31	30	29	28	27	27	26	25	24	24	23	22	22	21	21	20	20
160 (72.6)	36	35	33	32	31	30	29	28	27	27	26	25	24	24	23	22	22	21	21	20	19	19
155 (70.3)	35	34	32	31	30	29	28	27	27	26	25	24	24	23	22	22	21	20	20	19	19	18
150 (68.0)	34	32	31	30	29	28	27	27	26	25	24	23	23	22	22	21	20	20	19	19	18	18
145 (65.8)	33	31	30	29	28	27	27	26	25	24	23	23	22	21	21	20	20	19	19	18	18	17
140 (63.5)	31	30	29	28	27	26	26	25	24	23	23	22	22	21	21	20	20	19	18	18	17	17
135 (61.2)	30	29	28	27	26	26	25	24	23	22	22	21	21	20	19	19	18	18	17	17	16	16
130 (59.0)	29	28	27	26	25	25	24	23	22	22	21	20	20	19	19	18	18	17	17	16	16	15
125 (56.7)	28	27	26	25	24	24	23	22	21	21	20	20	19	18	18	17	17	16	16	15	15	15
120 (54.4)	27	26	25	24	23	23	22	21	21	20	19	19	18	18	17	17	16	16	15	15	15	14
115 (52.2)	26	25	24	23	22	22	21	20	20	19	19	18	17	17	16	16	16	15	15	14	14	14
110 (49.9)	25	24	23	22	21	21	20	19	19	18	18	17	17	16	16	15	15	15	14	14	13	13
105 (47.6)	24	23	22	21	21	20	19	19	18	17	17	16	16	16	15	15	14	14	13	13	13	12
100 (45.4)	22	22	21	20	20	19	18	18	17	17	16	16	15	15	14	14	14	13	13	12	12	12
95 (43.1)	21	21	20	19	19	18	17	17	16	16	15	15	14	14	14	13	13	13	12	12	12	11
90 (40.8)	20	19	19	18	18	17	16	16	15	15	15	14	14	13	13	13	12	12	12	11	11	11
85 (38.6)	19	18	18	17	17	16	16	15	15	14	14	13	13	13	12	12	12	11	11	11	10	10
80 (36.3)	18	17	17	16	16	15	15	14	14	13	13	13	12	12	11	11	11	11	10	10	10	9

Note: BMI values rounded to the nearest whole number. BMI categories based on CDC (Centers for Disease Control and Prevention) criteria.
www.vertex42.com BMI = Weight[kg] / (Height[m] x Height[m]) = 703 x Weight[lb] / (Height[in] x Height[in]) © 2009 Vertex42 LLC