

Scientists are no longer seen as neutral observers whose findings emerge from dogged research and peer review: they're just another face of the distrusted "elite".

.....scientists must talk about their mistakes and doubts as well as their successes.

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Theoretical physicist Giorgio Parisi

The alarming death of faith in science

It's a curious paradox, says the theoretical physicist Giorgio Parisi, president of Italy's leading scientific academy, but the more reliant our societies become on advanced technology, the less faith people have in scientists. I've had first-hand experience of this. When the second wave of Covid began, I wrote a long article outlining the measures needed to avoid a terrible death toll: immediately I was assailed by a flood of emails denouncing me as an agent of "Big Pharma". Scientists are no longer seen as neutral observers whose findings emerge from dogged research and peer review: they're just another face of the distrusted "elite". This is partly due to the way the hyper-concise, visual nature of digital media has downgraded the significance of the written word. But mainly, I suspect, it's because we've entered a pessimistic age in which economic and climate crises have eroded faith in progress: where science was once given credit for progress it's now blamed for decline. Only by educating the public in what scientific research involves, and what it achieves, can we allay this distrust. In particular, scientists must talk about their mistakes and doubts as well as their successes. The first step to restoring trust must be "a dose of modesty".

Giorgio Parisi
The Guardian



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Building Public Resilience to Vaccine Misinformation: The need for a responsive health systems

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Demand Side Factors Influencing Vaccine Acceptance

Age: Individuals under 30 are more likely to have lower vaccine acceptance.

Education Level: People with lower levels of education may be more hesitant about vaccines.

Trust in Government and Healthcare System: High Trust, High Acceptance, low trust in underserved groups

Awareness and Knowledge: vaccine safety, efficacy, ingredients, schedules, adverse events, myths and VPDs

Religious beliefs: can sometimes impact vaccine acceptance, especially if there are misconceptions or concerns about religious permissibility.



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Demand Side Factors Influencing Vaccine Acceptance

- **Conspiracy Theories:** such as false beliefs that vaccines can cause harm or contain controversial ingredients, microchipping, or population control.
- **Misinformation on Social Media:** on social media platforms can sway public opinion and lead to vaccine hesitancy.
- **Perceived Risks:** associated with the disease being vaccinated against. In low-incidence areas, e.g. Pakistan's declining polio cases, lower risk affects vaccine acceptance.
- **Previous Vaccination History/Experience:** negative experiences and frequent door-to-door vaccination leading to potential vaccine refusal.
- **Cultural Beliefs:** such as traditional beliefs and practices, can impact vaccine acceptance in conservative communities.

Supply Side Factors Affecting Vaccine Acceptance

- **Vaccine Accessibility:** The ease of access to vaccination centers and the availability of vaccines can affect acceptance rates.
- **Healthcare Provider's Influence:** Patients who receive a strong recommendation from healthcare providers are **4.6 times** more likely to get vaccinated.
- **Cost** of vaccination can be a barrier to acceptance in some cases, especially in low and middle-income countries, where **67%** of people are unwilling to pay for vaccination.
- The **presence of community health workers** who promote health education and vaccination can improve vaccination rates (e.g. LHW program in Pakistan).
- **Healthcare Staff Training and Motivation** can lead to a approximately **20%** increase in vaccination uptake

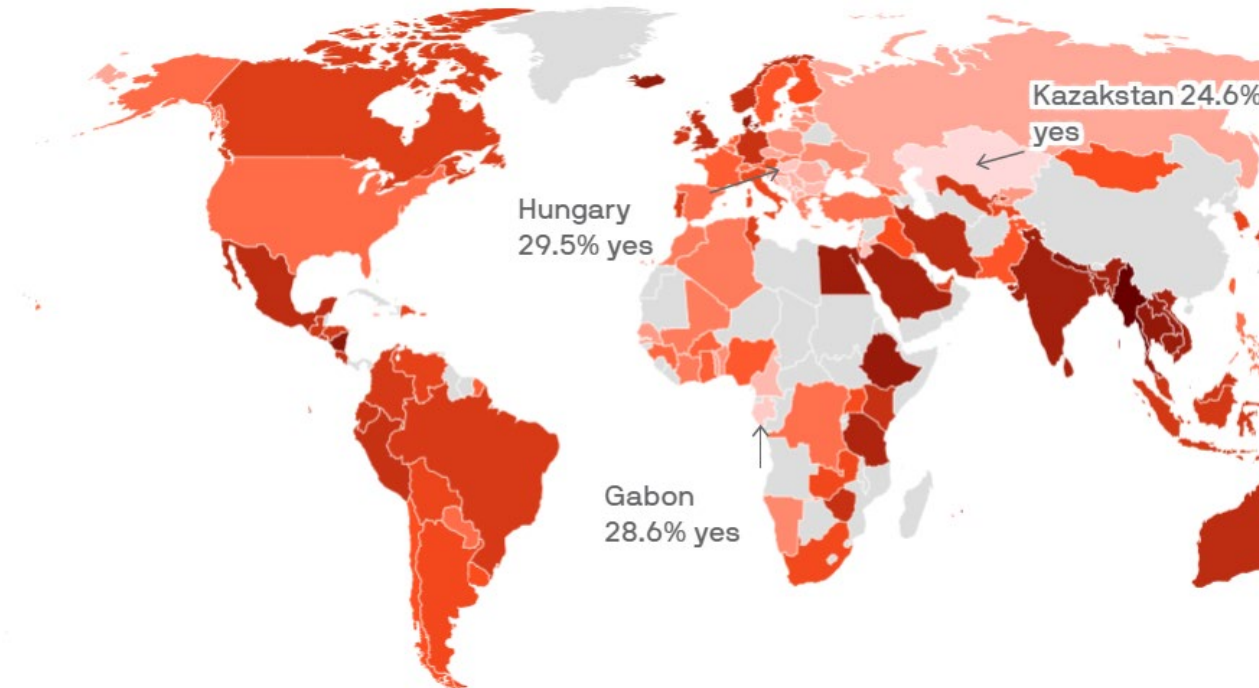


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Global vaccine enthusiasm

2020 survey of over 300,000 people across 117 countries

Percent who said they would agree to be vaccinated

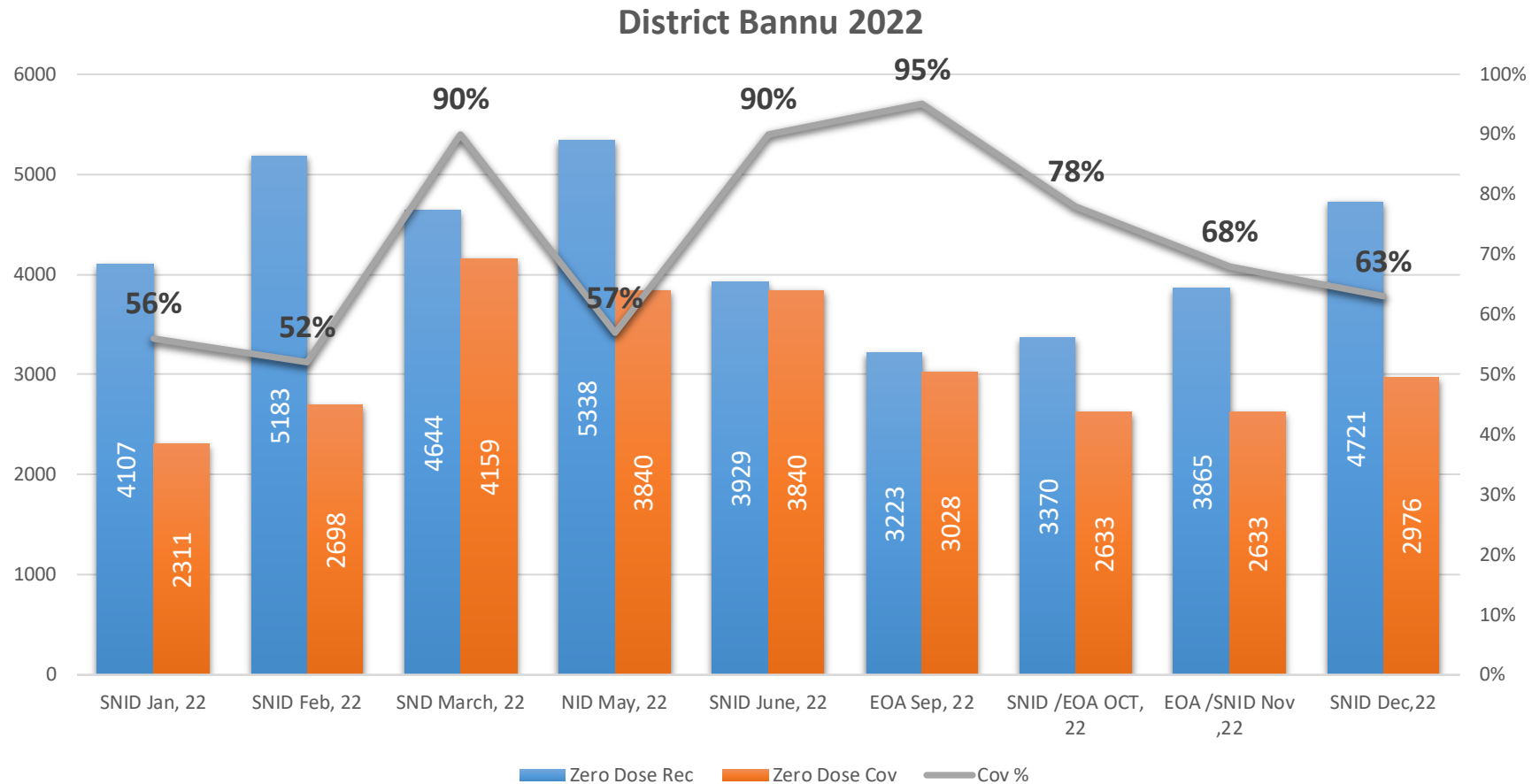


Data: Gallup; Chart: Michelle McGhee/Axios

Vaccine Acceptance

- Vaccine acceptance is pivotal in safeguarding public health, averting outbreaks, and protecting communities.
- Vaccine hesitancy, characterized by delays or refusals, is a major worldwide health concern.
- In 2019, the WHO identified vaccine refusal as a top 10 global health threat.
- Diverse vaccine acceptance rates among nations highlight global disparities.
- Global Vaccine Acceptance: 68%
- Vaccine Hesitancy Among HCWs: 37%

Zero Dose Status of District Bannu (Year-2022)

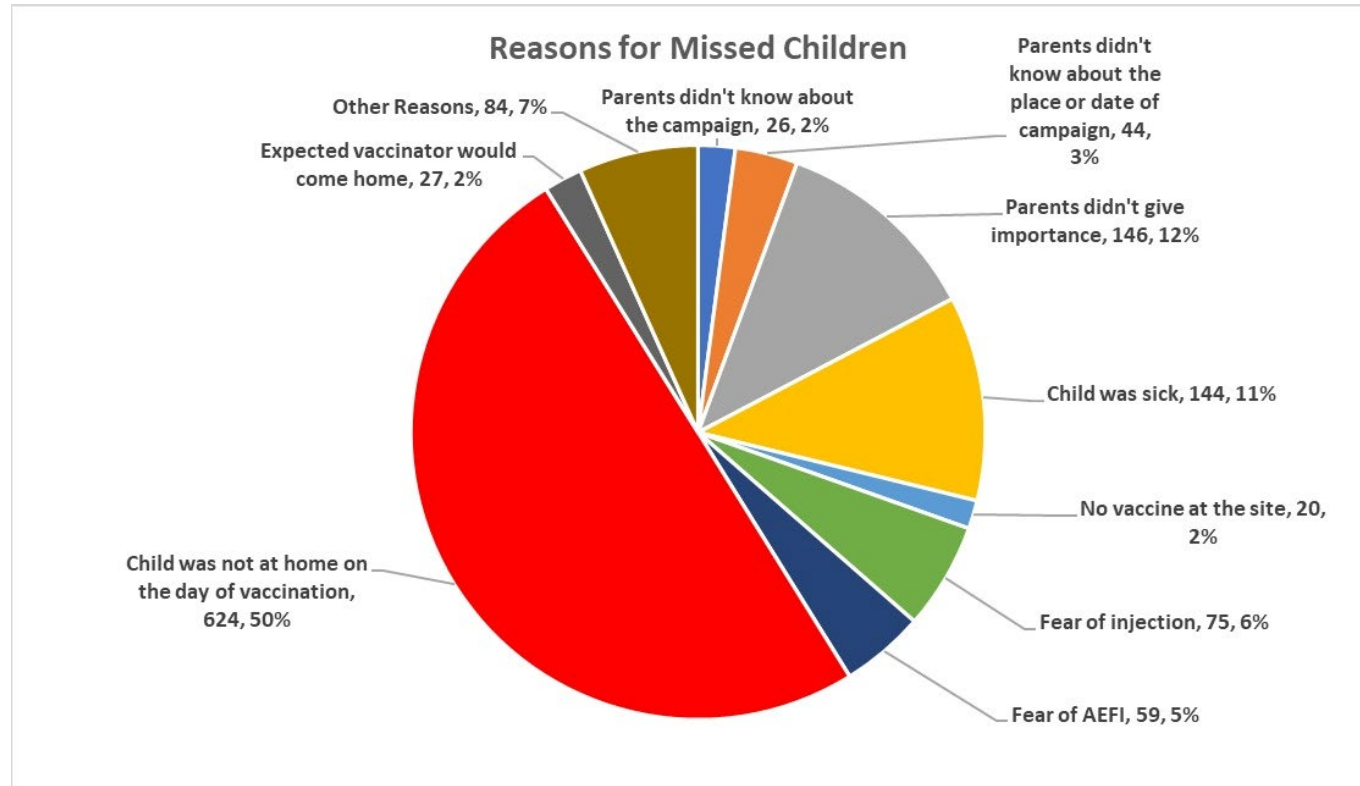


Measles Rubella Vaccine Introduction: Rapid Convenience Assessment (RCA)

Province	No of Households Assessed	Total # of children aged 0 m to <5 yrs.	Total # of children received OPV	OPV Coverage %	Total # of children aged 9 m to <15 yrs.	Total # of children received MR vaccine	MR Coverage %
AJK	400	544	499	92%	961	803	84%
Balochistan	361	569	473	83%	1209	1025	85%
GB	360	421	345	82%	1040	863	83%
ICT	27	31	31	100%	64	54	84%
KPK	320	474	417	88%	1257	1026	82%
Punjab	450	777	629	81%	1604	1326	83%
Sindh	440	662	593	90%	1628	1408	86%
Grand Total	2358	3478	2987	86%	7763	6505	84%

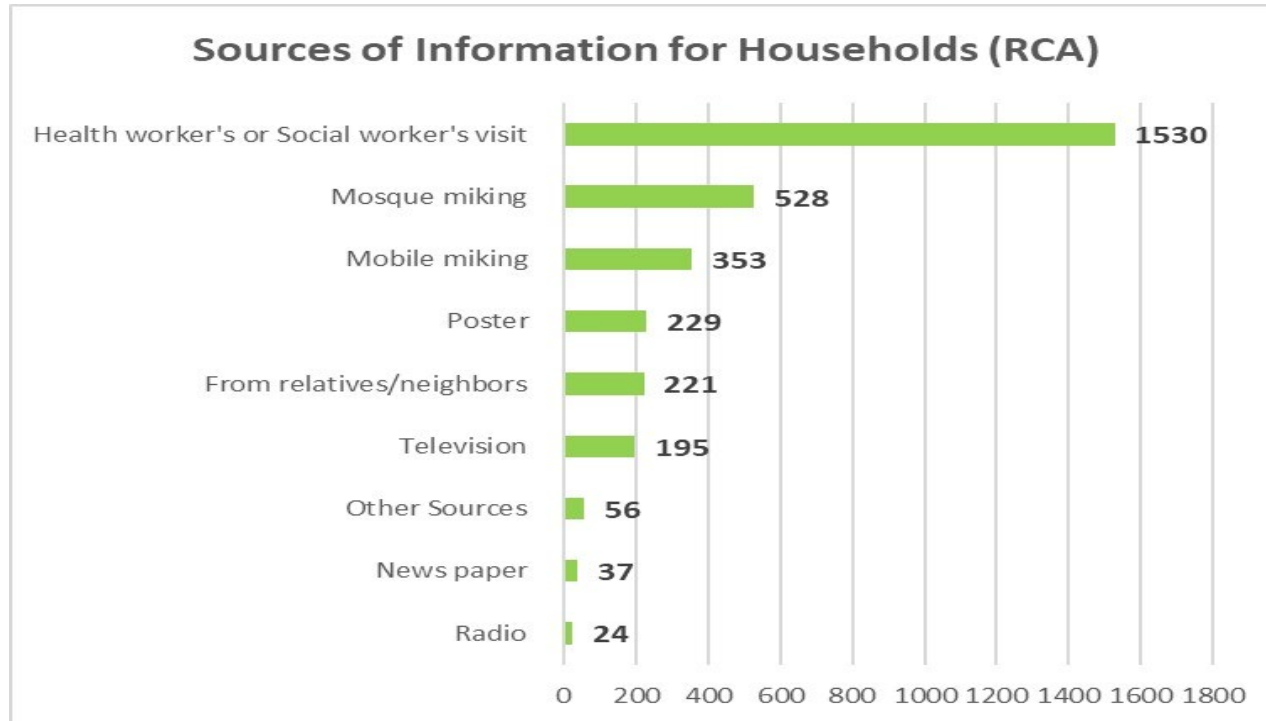
- A total of 2358 houses, 3478 children aged 0 to 59 months and 7763 children aged between 9 months to 15 years were covered during the assessment.
- OPV coverage overall (86%), remained slightly higher than the MR coverage (84%).
- OPV coverage was recorded comparatively lower in Punjab (81%), and highest in ICT (100%) and AJK (92%).
- MR coverage was recorded comparatively lower in KPK (82%), however it was reported highest in Sindh (86%).

Measles Rubella Vaccine Introduction: Reasons for Missed Children



- Most common reason for missed children was “Child not at home on the day of vaccination” i.e., 50%.
- Second most common reason was “Parents did not give importance” i.e., 12%.
- And the third common reason was “Child was sick” i.e., 11%.

Measles Rubella Vaccine Introduction: Sources of Information About MR Campaign



- Most common source of information for household was “health worker’s or Social worker’s visit” (1530 households).
- Second most common source was “Mosque Miking” (528 households).
- The third most common source was “Mobile Miking” (353 households).

Measles Rubella Vaccine Introduction: Vaccination Site Monitoring

Social Mobilization at Outreach Sites		
Province	No of Outreach Sites Visited	Social Mobilization at Outreach Sites
AJK	28	64%
Balochistan	17	75%
GB	29	68%
ICT	3	83%
KPK	24	92%
Punjab	26	76%
Sindh	31	64%
Grand Total	158	72%

- A total of 158 outreach sites were visited.
- Social Mobilization at outreach sites overall, remained low during the campaign (72%).
- Social Mobilization was observed lowest in Sindh and AJK with (64%) score, and remained highest in KPK and ICT with 92 % and 83% scores respectively.

Measles Rubella Vaccine Introduction: Monitoring of Monitors*

Province	No of Districts Visited	% of Monitors Present in Field	% of Monitors Satisfactorily Filling Monitoring Checklists	Monitors Spending adequate Time in the UC	No of Monitors Monitored
AJK	9	22%	19%	19%	27
GB	9	100%	78%	93%	27
KPK	9	96%	96%	96%	27
Punjab	10	67%	50%	50%	30
Sindh	10	90%	90%	90%	30
ICT	1	100%	100%	100%	3
Balochistan	7	62%	43%	43%	21
Grand Total	55	74%	64%	67%	165

*All these are composite variables made up of inter-related indicators in UC Monitoring Checklist.

- The tables shows that a total of 165 monitors were monitored in field in 55 districts across all the provinces/ areas of Pakistan.
- 26% monitors were not found present in field.
- 36% monitors were not satisfactorily filling the monitoring checklists.
- 33% monitors were not spending enough time required for monitoring in a UC.

Tehsil Kakki RED/REC Microplan Target Analysis(Existing Micro Plan Vs PHC Global Assessment)

S. No	UC Name: Kakki 1	Total Population کل آبادی	Target Population ((ٹارگٹ آبادی))						
			New born نوزائیدہ بچے	Surviving Infants	12-23M	0-59 M	P&L Womens	CBA	Total House Hold
1	MP	26453	767	726	726	4232	782	5820	2188
2	PHC Global Assessment	24961	872	708	682	3795	494	5547	2875
3	Difference from Assessed	-1492	105	-18	-44	-437	-288	-273	687

Key Findings: COVAX Roll Out Monitoring Round 3

Staff Training

- Staff trainings situation in Balochistan were particularly grim – mostly due to no COVID-19 specific trainings and staff transfers. Existing staff at CVCs did not have any COVID-19 specific trainings since 2021
- Islamabad, AJK, and GB had the highest numbers of trained staff at CVCs.

Province	CVC Guidelines & SOPs	Infection Prevention & Control Measures	Vaccine Supply Records & Storage	Vaccine Administration	Client Data Entry	Client Counselling	Waste Management SOPs	EFI Referral Strategy to be Provided to All Staff	Overall Trainings & age
Sindh	65%	74%	65%	70%	78%	78%	65%	74%	69%
Punjab	42%	63%	68%	65%	65%	67%	60%	60%	58%
Baluchistan	0	0	10%	10%	30%	10%	0	0	8%
KPK	66%	74%	83%	86%	80%	74%	86%	66%	72%
GB	86%	71%	71%	86%	100%	100%	71%	86%	82%
AJK	71%	86%	100%	100%	86%	100%	100%	100%	92%
Islamabad	33%	100%	100%	100%	100%	100%	100%	100%	89%
Overall Total (%)	52%	65%	70%	70%	72%	70%	66%	63%	63%

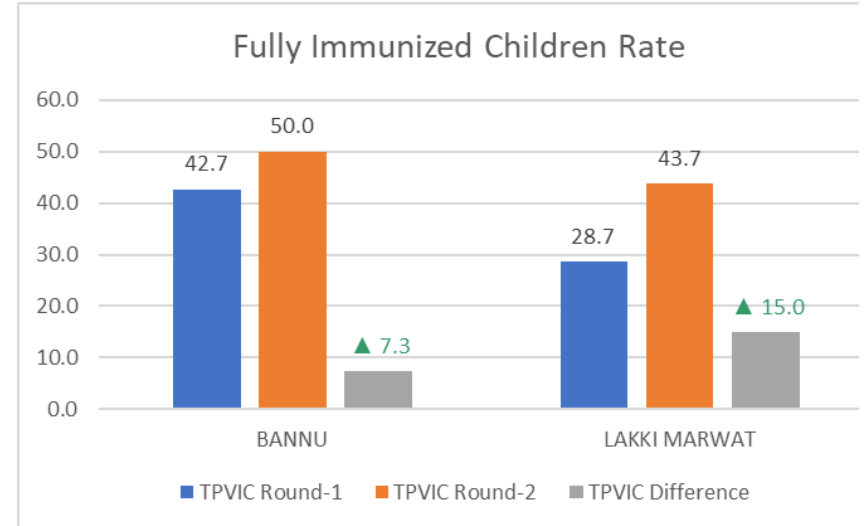
Case Study 1 - Boosting Vaccine Acceptance in One of the Most High-Risk Regions of the World

Region: Southern Khyber Pakhtunkhwa – polio reservoir

Challenges: Low Vaccine Coverage, Hesitancy, Misinformation

Key Strategies: Multifaceted Approach - Governance, Motivation, Skills, Community Engagement, and Oversight for EPI

Impact: Achieved a remarkable **6%** and **13%** surge in Fully Immunized Children coverage in Bannu and Lakki Marwat respectively within 12 months, despite declining provincial rates.



Case Study 2: From Crisis to Success - Typhoid Vaccination Campaign in Pakistan (2022)

Challenge: Widespread refusal sparked by a false AEFI video in KP province jeopardized the typhoid campaign's success.

Strategy: Targetted awareness campaign in local languages and robust crisis communication efforts.

Impact: The campaign achieved almost **100%** target coverage. PHCG field staff reached over **50,000** previously refusal children.



From context to *care* :

Strengthening Capacities in Pakistan's Healthcare

Workforce with eLearning

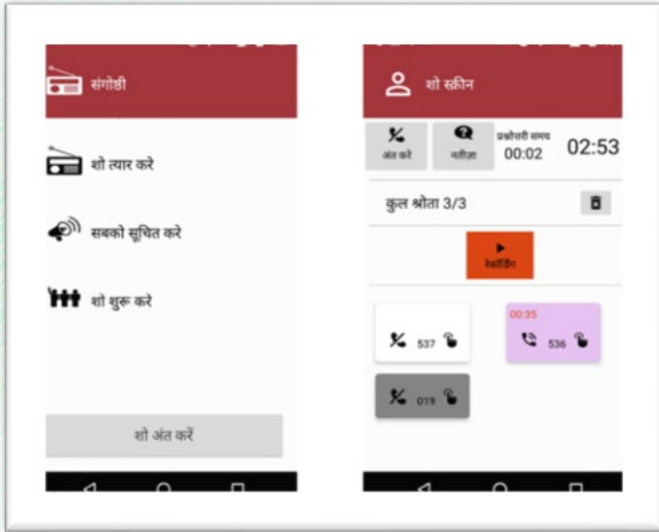
www.phcglobal.org



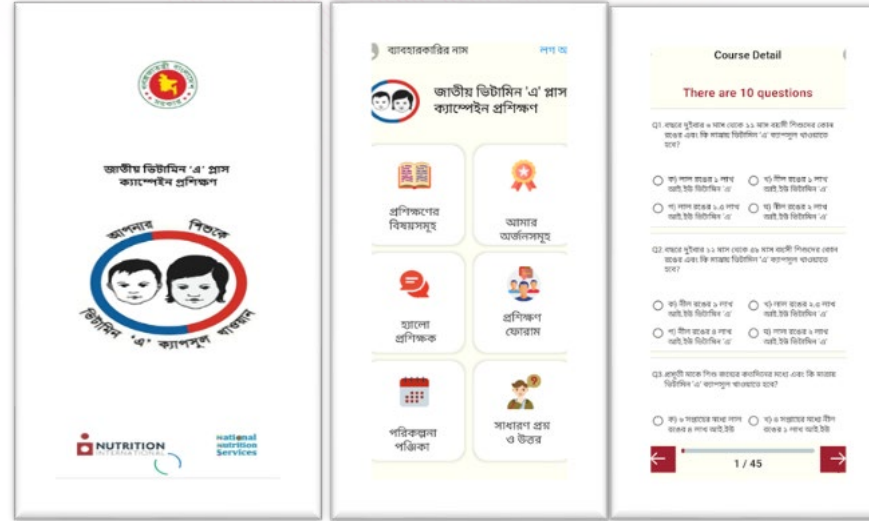
Simply digitizing training content does not guarantee these benefits. The e-learning platform needs purposeful human-centric design focused on the health workforce and ground realities. Good design nurtures engagement and skills application.



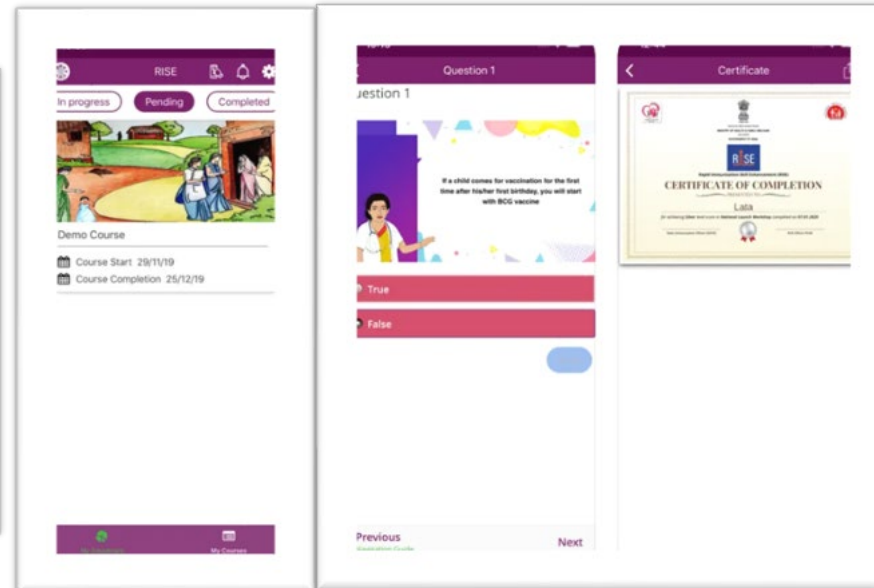
E-learning Platforms for Health in LMICs



SANGOSHTI App for ASHA Workers in India



NVAC e-Learning app for healthcare workers with National Vitamin 'A' Plus Campaign in Bangladesh.



RISE app developed by Ministry of Health & Welfare Agency, India

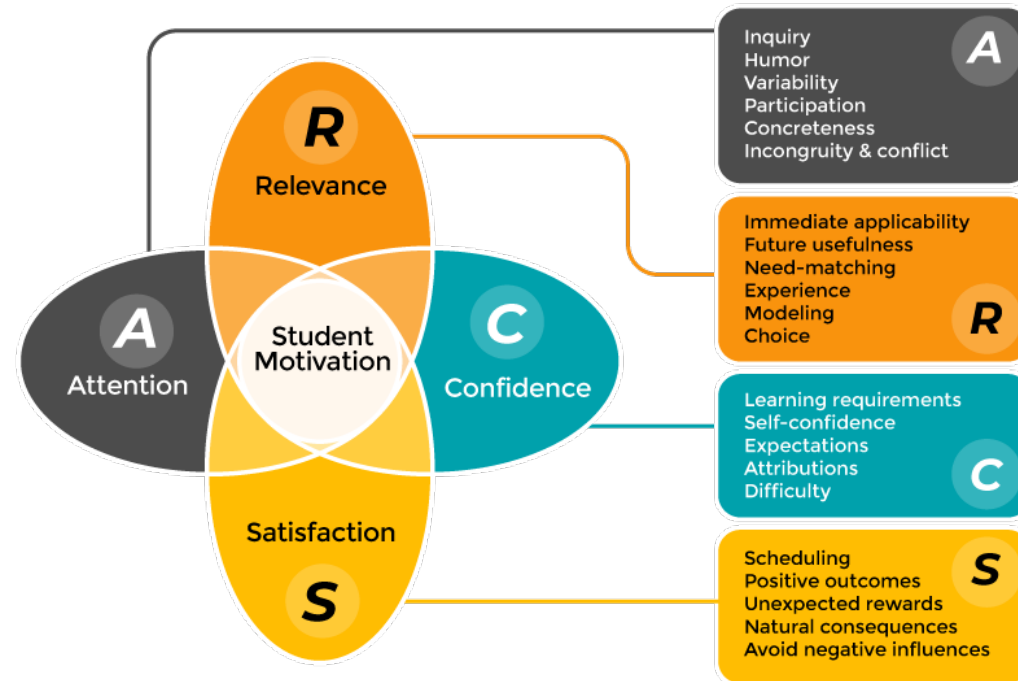
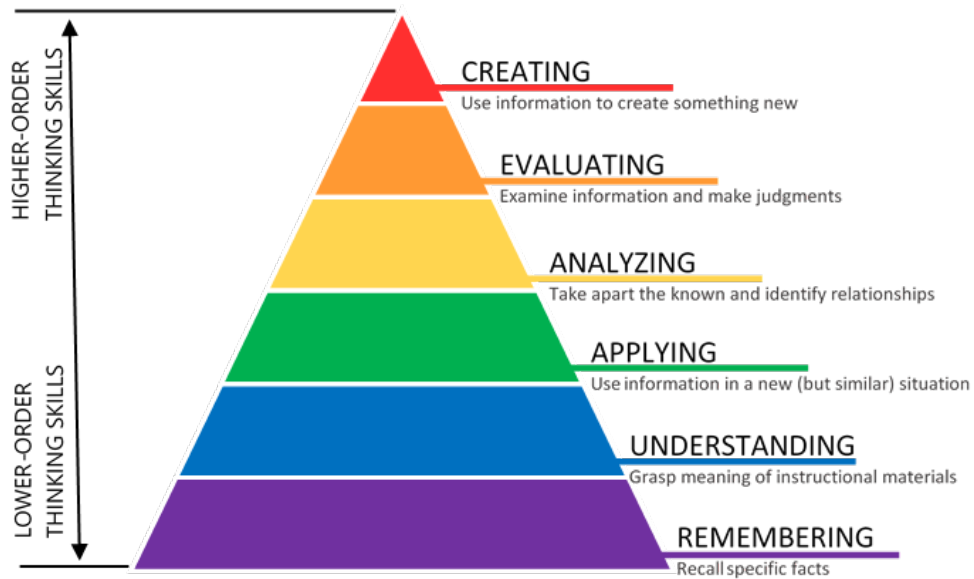
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How could empowering narratives boost aspirations?

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John Keller's model for learner motivation

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Formative Research and Development of an Evidence-Based Communication Strategy: The Introduction of Vi Typhoid Fever Vaccine Among School-Aged Children in Karachi, Pakistan

Alfred Pach, Ghurnata Tabbusam, M. Imran Khan, Zamir Suhag, Imtiaz Hussain, Ejaz Hussain, ...show all

Pages 306-324 | Published online: 18 Jan 2013

 Cite this article  <https://doi.org/10.1080/10810730.2012.727958>

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Abstract

The authors conducted formative research (a) to identify stakeholders' concerns related to typhoid fever and the need for disease information and (b) to develop a communication strategy to inform stakeholders and address their concerns and motivate for support of a school-based vaccination program in Pakistan. Data were collected during interactive and semi-structured focus group discussions and interviews, followed by a qualitative analysis and

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