



POSITIVE
DEVIANCE
INITIATIVE

Will Rahima's Firstborn Survive Overwhelming Odds?

Positive Deviance for Maternal
and Newborn Care in Pakistan¹

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Mother with healthy child in Haripur District of Pakistan. Photo: PDI



Young children in Haripur District who beat the overwhelming odds against survival

"The grave opens its mouth for mother and child for 40 days after birth."--A local proverb

In a remote mountainous community in Haripur District of Pakistan's North West Frontier Province (NWFP), a few dozen miles north of the ruins of the ancient Buddhist educational township of Taxila, 19-year old Rahima felt a sharp, painful twitch in her abdomen. Eight months pregnant, Rahima wondered if the labor pains for her first child had begun--four weeks prematurely!

As the cold wind blew outside her sparse two-room home in Bagra village, Rahima's anxiety climbed steeply, much like the full moon gleaming in the sky. Did the full moon represent a good omen? Rahima would accept any kind of assurance, celestial included, for she knew that of the last eight births in Bagra village, two newborns did not make it past the first 40 days.

Would her firstborn beat the one-in-four odds of survival in this harsh physical environment that had the dubious distinction of harboring one of the highest rates of infant mortality in the world?

The odds for Rahima's firstborn to face pregnancy complications were stacked high.

She had received no ante-natal care leading up to her impending delivery, no iron or vitamin supplements, and no tetanus toxoid vaccination. Her workload was heavy, and she tired easily cooking, cleaning, and caring for her in-laws, her husband, and his three younger unmarried brothers.

While Rahima's body needed more food and nutrients for the growing fetus, her mother-in-law limited her food portions so that the newborn would not be too big and thus be easily delivered. Rahima's husband, Mushtaq, a small-time subsistence wheat farmer, was looking forward to becoming a father, wishing for the birth of a male child who could carry on the family name.

Although a conscientious husband, Mushtaq, like most other husbands in Bagra village, was not involved in his wife's pregnancy and ante-natal care. His preoccupation were his wheat fields and providing for the extended family. Mushtaq had no cash savings and made no preparation for any emergencies or pregnancy-related complications for Rahima.

POSITIVE DEVIANCE

is an approach that is uniquely successful in extremely difficult situations, where perhaps other approaches have failed.

POSITIVE DEVIANTS ARE INDIVIDUALS

or groups who find solutions to problems through local wisdom, without access to special resources.

As per Bagra's social norms, pregnancy, delivery, and child care were exclusively in the women's domain. Mushtaq's mother, Shakila Bano, who with her experience of birthing 13 children (10 of whom survived), was Rahima's primary resource for maternal and newborn care.

With the midnight hour approaching and blistery mountainous winds howling, calling the *dai*, the traditional birth attendant, from a neighboring village was not possible. Shakila would help Rahima deliver the baby with the help of a neighboring aunt. Knowing the messiness of delivering a baby, Shakila spread some jute bags on the cold floor of the animal shed where Rahima would squat holding on to a *charpoy*, a four legged bed, for support. Writhing in pain, Rahima pushed and pushed until her firstborn—a daughter—was delivered.

Shakila sawed the umbilical cord with a bamboo stick and tied a traditional thread around it to stop the bleeding. A dressing of *desi ghee* (clarified butter) was applied to keep the cord moist and lubricated. The aunt laid the premature newborn girl on the cold floor as Shakila delivered Rahima's placenta.

Mushtaq brought in a bucket of tepid water heated in haste over a wood stove and the aunt bathed the shivering newborn in an attempt to remove the vernix. The baby was then wrapped in a rag blanket and handed to Shakila so she could administer the child *gutti*, a homemade pre-lacteal concoction made from green tea, buffalo milk, *ghee*, and sugar.

The prevailing belief is that the person who administers the *gutti* transfers their characteristics (intelligence, disposition, or charm) to the newborn. The thick colostrum, *keer*, flowing out of Rahima's breasts,

full of antibodies to boost a newborn's immunity, was discarded, deemed unfit for the newborn's consumption. For the first hours, the *gutti* would suffice.

With the newborn washed, wrapped, and fed, Mushtaq's father, the elder male, was summoned to whisper *azan*, a prayer from the Holy Quran, in the newborn's ear on the threshold of the room where Rahima delivered.

Rahima prayed silently that her tiny premature baby girl would survive, if not thrive, against overwhelming odds.

SAVING NEWBORN LIVES

Between January 2001 and October 2004, the Positive Deviance approach was implemented in a phased manner in eight villages of Haripur District in Pakistan's North West Frontier Province to deliver better health outcomes for the likes of Rahimas and their newborns.

Positive Deviance (PD) is based on the observation that in every community there are certain individuals or groups whose uncommon behaviors and strategies enable them to find better solutions to problems than their peers, while having access to the same resources and facing similar or worse challenges. In essence, among the thousands of Rahimas, Shakilas, and Mushtaq's of Haripur District, were there a handful of individuals whose uncommon practices resulted in better health outcomes for the mothers and their newborns?

Initiated by Save the Children as part of their Saving Newborn Lives (SNL) Initiative in Pakistan, the project represented the first application of the PD approach to address maternal and newborn care issues.

IN THE POSITIVE DEVIANCE APPROACH

change is led by internal change agents who present social proof to their peers.

Beginning with an experimental PD process in two villages—Bagra and Banda Muneer Khan, followed by a pilot phase in Kaag and Chanjiala villages, where various PD processes, tools, and strategies were further refined, a larger four-village intervention was implemented in Garamthone, Nilorepaeen, Bhaira, and Chambapind villages. Baseline and end-line data were collected in these four interventional villages and in four comparison control villages to rigorously assess the effects of the PD intervention.

IMPLEMENTING THE POSITIVE DEVIANCE APPROACH

“When people come from outside, it does not feel good. But if we see the new things with our eyes, and try them, and see some people practicing them, that definitely has a stronger effect.”

— A young mother in Garamthone Village

The use of the PD approach in these eight communities of Haripur District followed an iterative, well-defined process in two phases. In Phase one, activities were initiated to foster **community dialogue** about the problem of newborn mortality and morbidity among community members (separately between male and female groups) in order to identify PD newborns and their families, discover what were their demonstrably successful strategies (through a PD inquiry), and develop a plan of action. Phase two was dedicated to **community action** via community-designed neighborhood activities undertaken by both male and female groups.



Post-partum care role-playing with dolls

The PD process, designed to build strong rapport with the community members, helped the intervention team learn about the local contexts of understanding with respect to maternal and newborn care. For instance, the concept of “newborn” was extended to babies under 40 days to match the cultural mindset in which babies have a special moniker for up to 40 days.

Because in the NWFP of Pakistan, safe motherhood, pregnancy, and delivery are highly taboo subjects, a step by step approach was employed with various participatory activities such as transect walks, focus group discussions, social network maps, newborn mapping, and in-depth interviews. During the community orientation and feedback sessions, facts and figures about newborn and maternal care were shared, including powerful, emotive testimonies from family members who had lost a newborn or a wife, daughter-in-law, or niece during labor and delivery.

A baseline about newborns in the community was established working with both women and men’s groups. A newborn mapping activity was conducted by both groups to determine how many babies had been born the year before, how many had been stillborn or died immediately after birth, after 7 days, after 28 days and within 40 days.

Concurrently, explorations of common practices with women’s groups around pregnancy, delivery, and immediate and subsequent post-partum care were explored using stuffed dolls as props. The dolls provided a visual representation of how the newborn was handled during the delivery process and post-delivery.

The PD inquiry was initiated to enable the community to discover the uncommon yet effective behaviors and strategies that lie amidst them, and to develop a plan of action to promote their adoption among community members.

The PD team—composed of village leaders, self-identified volunteers (activists) and the NGO staff—defined a Positive Deviant (*misali kirdar*) newborn, as one who survived against heavy odds because of poverty, prematurity, and maternal health history (e.g. miscarriages, anemia, and/or age of mother).

Maternal and Newborn Care Issues

Observable PD Practices

Pregnancy, Delivery, and Immediate Newborn Care	-A pregnant mother went for antenatal consultation and tetanus toxoid injection.
	-A husband asked the <i>da'i</i> , the traditional birth attendant, to see his wife in her 9th month of pregnancy although she was well.
	-A husband increased the food intake of his wife during pregnancy, especially in the last 2 months.
	-A husband arranged for enough money to hire a transport in case of a delivery emergency.
	-The family hand-stitched a small mattress (<i>gadeila</i>) for the baby to have a clean and warm surface immediately following delivery.
	-A husband gave the <i>da'ia</i> clean blade.
	-A mother-in-law placed clean plastic under the mother for delivery.
	-A husband insisted that nothing be applied on the umbilical cord after it was cut and tied.
Breastfeeding	-A sick and premature baby was exclusively breast-fed with no supplements and no <i>gutti</i> .
Nurturing	-A father realized that his newborn son was weak and small, and therefore a special child (<i>khas batcha</i>), requiring special care. The baby was kept warm by wrapping and his nappies changed frequently. The child was exclusively breastfed and the quality and quantity of food for the mother was increased. The mother was made unavailable to the rest of the household so that she could exclusively care for the baby.

Table 1. Some Observable Positive Deviance Behaviors Related to Maternal and Newborn Care

WHEN POSITIVE DEVIANT

practices are made visible, they
are immediately actionable
because they are accessible to
everyone in the community.

POSITIVE DEVIANCE VALUES

the wisdom of ordinary people.

Besides the newborn, family members related to the newborn were identified as PD persons, such as a father who saved money in case of obstetric emergency at delivery, a mother-in-law who prepared a delivery kit for the arriving newborn, a *dai* who successfully resuscitated newborns who were not breathing and practiced clean cord cutting and appropriate cord care.



A mother sharing PD behaviors she practices with other women in the Healthy Baby Fair

The inquiry also helped discern household behaviors that increased the chances of newborn survival, including tetanus toxoid vaccination and antenatal care for the mother, delivery preparedness on part of mothers-in-law and *dais*, emergency-preparedness on part of husbands, the use of clean surface for delivery, clean hands while delivering, clean cutting of umbilical cord, thermal care of newborns, exclusive breastfeeding, timely care-seeking for premature or sick babies, paternal involvement in spouse and childcare, increase in postpartum maternal diet, and others.

The PD inquiry also yielded rich insights on messaging strategies used by the *misali kirdars*. For example, a religious leader noted: “we don’t need to bathe the baby for *azan* as when we listen to *azan* (a prayer from the Holy

Quran) five times a day, we are not clean most of the time, so in the same way newborns need not be bathed before saying *azan* in their ears.” This religious leader, and his message about delaying the bathing rituals of a newborn, was then given play in *mohallah* (neighborhood) sessions and in community Healthy Baby Fairs, thus multiplying its effects.

To advocate for paternal involvement in maternal health pre and post delivery, a father noted: “Giving *panjiri*, a nutritionally-rich protein bar, to the pregnant woman can lead to a healthy baby and also keep mother’s life out of danger. If we provide food for the mother, it will ensure the health of the baby.”

A mother-in-law explained the benefits of exclusive breastfeeding for her daughters-in-law: “The baby has no disease in the mother’s womb. If breast milk were dangerous, the baby would become ill in the womb. So mother’s milk is safe for the baby because it comes from the mother’s body.”

Different channels of communication were used to repeat and reinforce the PD messages through different media, including religious and secular leaders and popular, culturally

appropriate tools, such as street theatre to validate the messages given by the PD volunteers.

However, the PD methodology focuses not just on the message delivery but also creates an enabling environment at the household level by involving husbands, mothers-in-law, the village health committee members, and members of the Village Action Team (VAT), who collectively facilitate and support the process of behavior change.

FROM INQUIRY TO CREATIVE IMPLEMENTATION OF A COMMUNITY-DESIGNED ACTION PLAN

The PD practices that were discovered were openly shared with community members in community-wide meetings, albeit separately, because of cultural mores, with male and female members. Here the community members had an opportunity to discuss the PD behaviors, seeing their relevance, usefulness, and practicality.

Moreover, this community meeting served as a springboard for action and the development of a community led initiative.



An interactive exhibit inviting pregnant mothers to select essential items for a clean delivery kit

The action plan was developed with the consensus of the whole community and displayed in a common social place to ensure transparency of roles and responsibilities to achieve the objectives. This basic plan was further developed or modified by the community-identified activists in the VAT workshop.

The VAT was formed to manage the project and members were asked how they could measure the impact of the initiative (e.g. survival of newborns, adoption of new PD behaviors, lasting change, and others) and **how** they would monitor the progress of the program.

These village health activists developed a six month plan, deciding that in cooperation with the community members, a plethora of activities would be undertaken at the neighborhood level with regular bi-monthly group interaction *mohallah* (neighborhood) sessions.

These meetings were facilitated by local social activists, who volunteered to carry out the community action plan. Each bi-monthly session was focused on a newborn and maternal

WHAT MAKES PD DIFFERENT

from other approaches is the combined focus on individual behavior change, as well as community and social change.

THE POSITIVE DEVIANCE APPROACH

is rooted in the belief that people learn by doing.

care topic and highlighted certain specific PD behaviors and strategies that had been discovered during the recent PD inquiries.

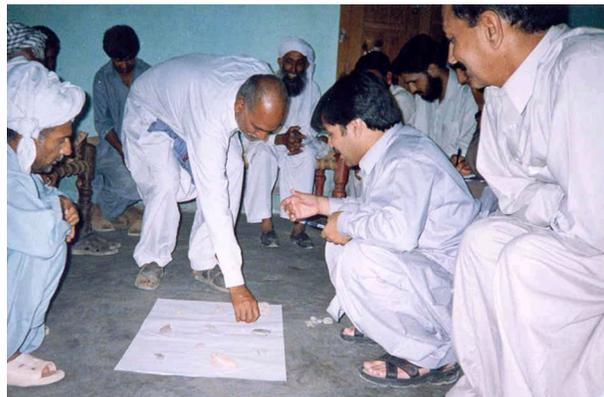
One of the fun activities in the male *mohallah* sessions was to set up a mock bazaar where men were asked to buy what they considered a clean delivery kit for pregnant women.

Discussion on each participant's purchase followed and resulted in men declaring, some anonymously, that a new razor blade was the best tool for cutting the umbilical cord.

The community's respect and open support for the men's contributions and decisions helped enhance their self and collective efficacy, leading to the emergence of a new and innovative leadership.

Scores of new male volunteers signed up to run the *mohallah* sessions. Similarly, in the female *mohallah* sessions, community volunteers set up a bazaar, laying out several objects on a table and asking pregnant mothers, mothers-in-law, and *daus*, to select the five or six objects (e.g. soap bar, clean blade, clean plastic sheet, etc.) that were essential for a clean delivery kit.

The selection of each object, essential or non-essential, sparked a healthy discussion about the object's relevance in delivery preparedness. New leadership emerged from these sessions to serve as volunteers and activists in improving the quality of lives of newborns and their mothers.



Male activists in village Banda Muneer Khan engaged in an interactive exercise to strategize their role in saving newborn lives

MEN TAKE CHARGE

The initial community dialogue in intervention villages unequivocally revealed that male involvement in maternal and newborn care was minimal. In this dominant Pashtun culture of patriarchy, male bonding with infants or caring for one's wife is perceived as not being "manly."

A popular local folktale emphasizes this norm of paternal-detachment:

"Once upon a time a father who was going for work in another village directed his wife not to pick-up the newborn baby too often and advised her to hold a hen instead. When he came back after a few weeks, he saw that the hen had become weak and the baby was thriving!"

The PD processes employed several interactive games and simulated role plays to help the local Pashtun men to



In keeping the balloons afloat, men realize their roles as husbands and fathers

become more involved in the care of their wives and newborn children.

One of the games used to pass on responsibility to the male Village Action team was the balloons-as-newborn game. Men blew air into balloons and floated them over their heads. They were told that newborns are happy and alive as long as they are floating, but if they fall to the ground that means they are sick and may die. So, what could they do individually, as well as collectively, to minimize newborn deaths?

By floating balloons, and keeping them in the air, they were “acting” on their communal, parental and spousal responsibilities: if they stayed together as a team and continue their PD work the newborn would survive and be safe; if they discontinued their collective effort the newborn would be endangered.

The PD project in Haripur District used a variety of interactive exhibits and artifacts to improve delivery preparedness and newborn care. In addition to the objects (e.g. new razor blade, soap bar, etc.) used during the *mohallah* bazaars, a big hit were homemade dolls, filled with rice or sand, and with detachable umbilical cord and placenta.

These dolls were used to elicit accurate information from female community members on current practices regarding how the cord was cut, how the placenta was delivered, where the newborn is laid down, how the newborn was handled, and how he or she was resuscitated.

The stuffed dolls were used to train female community volunteers in appropriate delivery and post-delivery practices, including the learning of new, improved newborn life saving behaviors. The dolls allowed mothers, mothers-in-law, fathers, and *dais* (the traditional birth attendants) to engage in learning by doing.

EVIDENCE OF OVERCOMING ODDS

“No newborn has died since the project began.”

— An elder in Village Garamthone a year after the project began

“We used to treat our women like *paon ki jooti* (flip flops). Now we recognize their dignity and treat them with respect.”

— An elder in an intervention village

THE PD APPROACH VALUES

monitoring and evaluation as
integral components of project
design.

THE POSITIVE DEVIANCE APPROACH

has proven to be effective through strong evidence.

A pre-post, interventional control research design pointed to significant gains in maternal and newborn care indicators. In comparison to control villages where the gains were insignificant, in the intervention villages:

+ the percentage of mothers giving home made pre-lactal feeds in the first 3 days decreased significantly from 70% to 25%

+ the percentage of pregnant mothers visiting ante natal clinics increased significantly from 45% to 63%

+ the percentage of newborns whose cords did not receive unhygienic homemade remedies increased significantly from 7% to 19%

+ the percentage of fathers who saved money and arranged for transport to tackle pregnancy emergencies increased significantly from 45% to 62%

+ the percentage of families that used a new blade to cut the baby's cord increased significantly from 19% to 33%

+ the percentage of families that delayed bathing the newborn for the first 24 hours increased significantly from 18% to 32%



Male elders participating actively in a *mohallah* session

It is useful to highlight that, in contrast to adopting the relatively simple behavior of using a new blade for cord cutting, the delayed bathing of a newborn represents a far more complex behavioral change, given its religious and cultural significance. Post-delivery bathing of a newborn is undertaken in most communities of Haripur District within minutes of delivery; an *azzan* (a Quranic prayer) is whispered by a male elder in the ear of the newborn, and the child needs to be “clean” for this purpose. However, early bathing causes hypothermia—a major killer of newborns.

The PD approach also helped in changing certain social norms in the intervention villages. In the North West Frontier Province, a highly conservative part of Pakistan, communication about maternal and newborn health is virtually absent. Infant and maternal mortality are

couched in fatalistic terms—“as God’s will.” Women, by tradition, are not allowed to participate in health education meetings. However, the introduction of the PD approach, which began by building trust with the community’s male elders, led to more open household, neighborhood, and community discussions on such “taboo” topics between men and women. The Positive Deviants identified by the community (mothers, mothers-in-law, *dais*, husbands, religious leaders, and others) found a forum to advocate their uncommon yet effective behavioral practices at community levels.

The odds of survival for the yet-to-be-born in Rahima’s village have gone up significantly since the PD approach to maternal and newborn care was implemented.

[†]This case draws upon: (1) Monique Sternin (2001). *Report on the Use of the Positive Deviance Approach in Neonatal Care in Pakistan*. Islamabad: Save the Children, (2) *Positive Deviance: A Strength Based Approach to Behavior Change and Social Mobilization* (2005). Islamabad: Save the Children, and (3) Monique Sternin (2005). *Qualitative Evaluation Report of the Positive Deviance Maternal and Newborn Care Project in Haripur District. Saving Newborn Lives (SNL) Initiative*. Islamabad: Save the Children.



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