

Use and role of misoprostol at different levels of the health care system

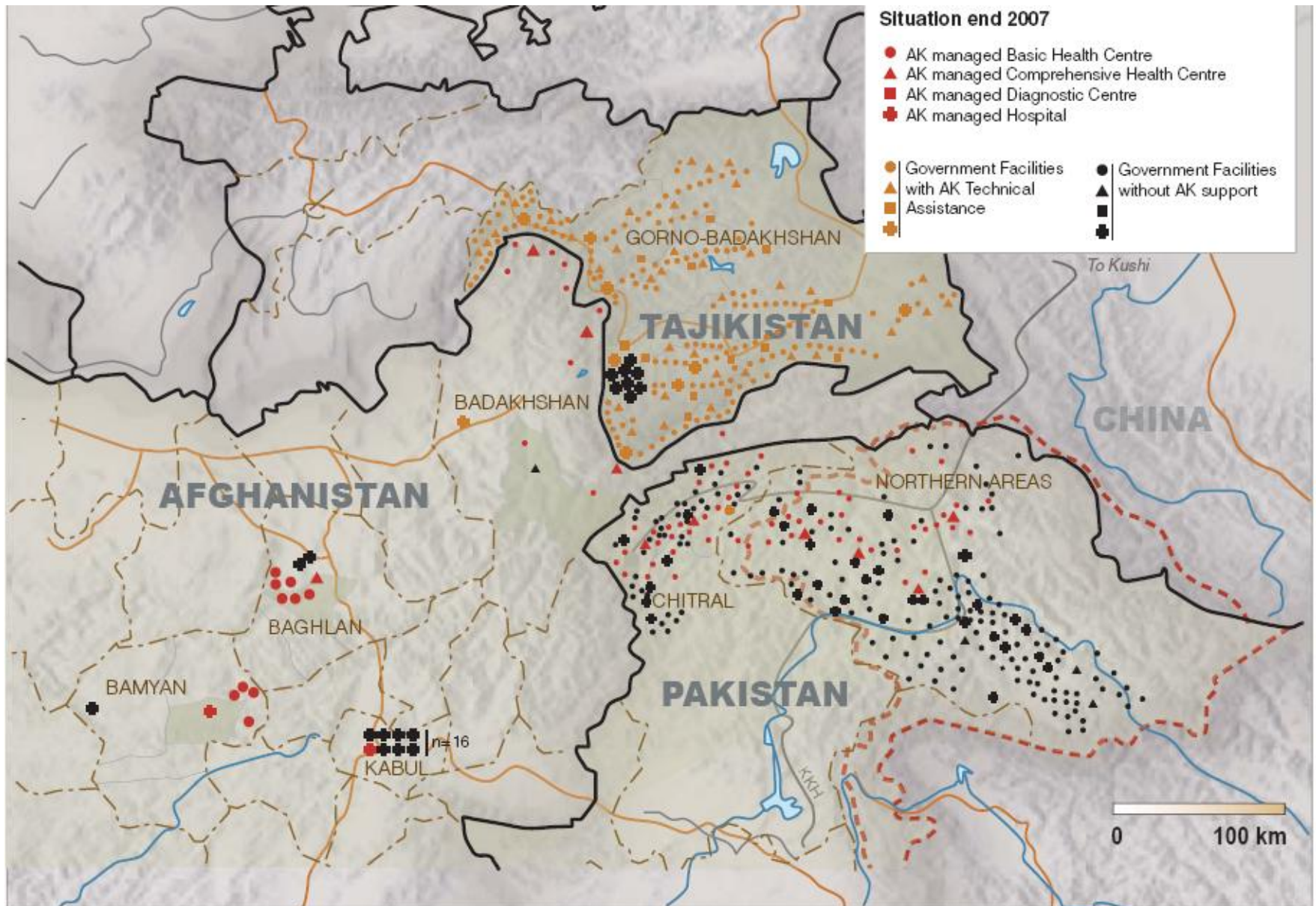
Does one size fit all ?

Seattle, 12 March 2009

Descending from the “hidden roof of the World”; its waters tell of forgotten peoples and whisper secrets of unknown lands. They are believed to have rocked the cradle of our race. Long the legendary watermark between Iran and Turan, they have worn a channel deep into the fate of humanity. World-wide conquerors, and Alexander and a Tamerlane, slaked their horses’ thirst in the Oxus stream; Eastern poets drank inspiration from its fountains; Arab geographers boasted of it as ‘superior in volume, in depth, and in breath to all the rivers of the world’.

George Nathaniel Curzon, 1894

Central Asia Map – 2007



Health Indicators for the Northern Areas & Pakistan

Indicator	Northern Areas 1986	Northern Areas 2004	Pakistan 2004
Population size programme		312,000	154.8 m
Infant mortality rate (per 1,000 live births)	158	31	80
Under 5 mortality rate (per 1,000 live births)	-	39	101
Maternal Mortality ratio (per 100,000 live births)	550	68	530
Life expectancy (yrs)	53	67	63
Life expectancy: females as proportion of males	102	-	101
% of children aged 12-23 months who received BCG, DPT, OPV3 and measles vaccine	11	72	
% of infants aged 0-5 months that are exclusively breastfed	-		16
% of infants of under fives suffering from stunting	-		37
% of infants of under fives suffering from wasting			13
% of children aged 6-23 months who received a vitamin A dose in the last 6 months	-	92	95
Contraceptive Prevalence (%)	-	33	28
Skilled attendant at delivery (%)	13	88	23
% of population using safe water sources	5	58	90
% of population using adequate sanitation facilities	8	51	54
Number of physicians per 1,000 population	-	0.3	0.7
Number of nurses per 1,000 population	-	1.6	
Number of hospital beds per 1,000 population	-	0.8	N.A.
Operational cost of the health programme per capita (in US\$)	-	6.7	

Health Indicators for GBAO and Tajikistan

Indicator	GBAO 1994	GBAO 2004	Tajikistan 2004
Population size programme	228,000	213,000	6.4 m
Infant mortality rate (per 1,000 live births)	28	38	91
Under-5 mortality rate (per 1,000 live births)	NA	52	118
Maternal mortality ratio (per 100,000 live births)	54	116	100
Life expectancy (yrs)	N.A.	69	64
Life expectancy: females as a proportion of males	N.A.	110	108
% of children aged 12-23 months who received BCG, DTP3, OPV3, and measles vaccine	40	36	
% of infants with low birth weight (< 2,500 gr)	25	15	15
% of infants aged 0-5 months that are exclusively breastfed	76	81	50
% of infants of under fives suffering from stunting	40	32	36
% of infants of under fives suffering from wasting	3.0	9	5
% of children aged 6-23 months who received a vitamin A dose in the last 6 months	96	89	N.A.
Contraceptive prevalence (%)	32	45	34
Skilled attendant at delivery (%)	70	76	71
% of population using safe water sources	36	36	58
% of population using adequate sanitation facilities	83	83	53
Number of physicians per 1,000 population	NA	2.1	2.2
Number of nurses per 1,000 population	NA	8.9	N.A.
Number of hospital beds per 1,000 population	NA	9.1	6.4
Operational costs of the AKDN health programme per capita (in US\$)	1.8	5.0	-

Health Indicators for Afghan Badakhshan & Afghanistan

Indicator	Badakhshan 2004	Afghanistan 2004
Population size programme	133,000	28.6 m
Infant mortality rate (per 1,000 live births)	217	165
Under-5 mortality rate (per 1,000 live births)	323	257
Maternal mortality ratio (per 100,000 live births)	6507	1900
Life expectancy (yrs)	46	46
Life expectancy: females as a proportion of males	96	101
% of children aged 12-23 months who received BCG, DTP3, OPV3, and measles vaccine	22	
% of infants with low birth weight (< 2,500 gr)	N.A.	N.A.
% of infants aged 0-5 months that are exclusively breastfed	15	N.A.
% of infants of under fives suffering from stunting	N.A.	54
% of infants of under fives suffering from wasting	N.A.	7
% of children aged 6-23 months who received a vitamin A dose in the last 6 months	3	86
Contraceptive prevalence (%)	1	10
Skilled attendant at delivery (%)	2	14
% of population using safe water sources	0.3	13
% of population using adequate sanitation facilities	0	8
Number of physicians per 1,000 population	0.1	0.2
Number of nurses per 1,000 population	0.2	N.A.
Number of hospital beds per 1,000 population	0.2	N.A.
Operational costs of the AKDN health programme per capita (in US\$)	11.2	-

Northern Areas Pakistan



Eastern Tajikistan



North-East Afghanistan



North-East Afghanistan



Why do women die of PPH?

- The prevalence of severe anaemia is substantial
- Many women deliver at home and often attended by unskilled providers
- When there is a recognized problem, emergency transport might not be available/affordable, distances might be long
- The facility might not have trained HR available, or the necessary supplies and equipment

To reduce maternal deaths due to PPH: what can be done?

- Address socio-economic and cultural barriers that prevent women from accessing health care.
- Raise community awareness
- Ensure that a skilled birth attendant attends every birth
- Upgrade health facilities – adequate transportation, communication, supplies, drugs, equipment
- Engage obstetricians, including ‘task shifting’

Prevention of PPH with misoprostol : recommendations

- Active management of the 3rd stage of labour should be promoted, and oxytocin is the best uterotonic for prevention of PPH
- There is good evidence to recommend injectable uterotonics rather than oral misoprostol where possible (Alfirevic et al. 2007)
- Misoprostol can be used by health workers trained in its use in settings where alternative injectable uterotonics are not available

Trained TBAs and misoprostol?



Prevention of PPH with misoprostol : outstanding questions

- Can the dose for misoprostol be lowered, resulting in a lower incidence of side effects ?
- Is careful monitoring and regular evaluation of community distribution of misoprostol for self administration by the mother after childbirth as part of a benefit-harm analysis possible?
- Uniject?

Treatment of PPH with misoprostol : overall recommendations

- Given the (limited) evidence, use available standard methods for PPH treatment and use misoprostol when other methods are not available or have failed (Blum et al. 2007, Blum yesterday)

Treatment of PPH with misoprostol : outstanding questions

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“Projections indicate that the targets of the global MDGs, including the target to reduce maternal mortality by three quarters, cannot be met, regardless of how much progress is made in other poor, but well-governed environments, unless substantial improvement takes place in the many areas of the world that are regarded as difficult environments” (DfID, 2004)