

Maternal Nutrition in Bangladesh: Achievements and Challenges

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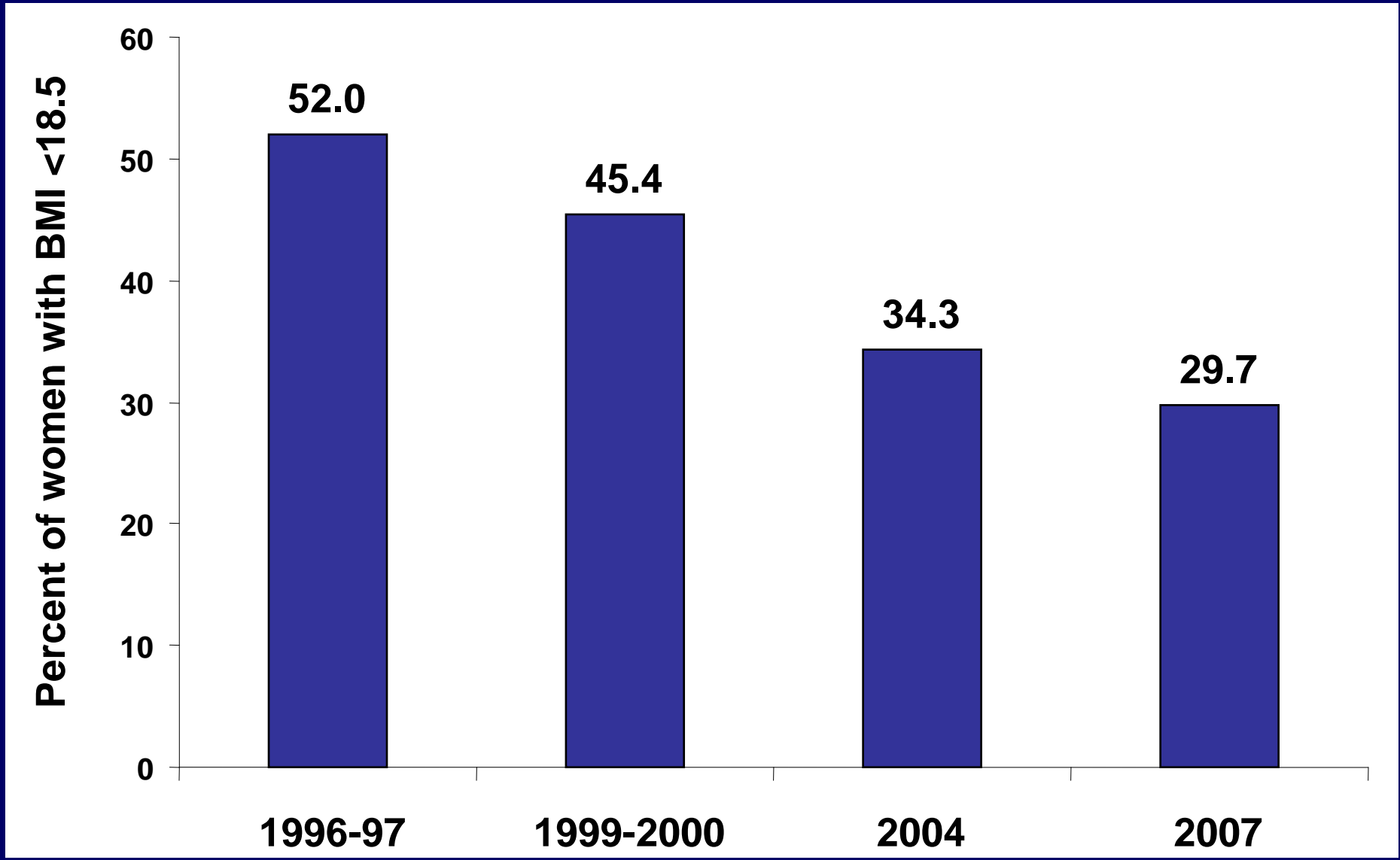
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Outline of Presentation

- Trends in maternal nutrition in Bangladesh
- Anemia, vitamin A status during pregnancy
- Reasons for the changes
- Programmatic constraints
- Solutions

CED of Women – Trends in Bangladesh



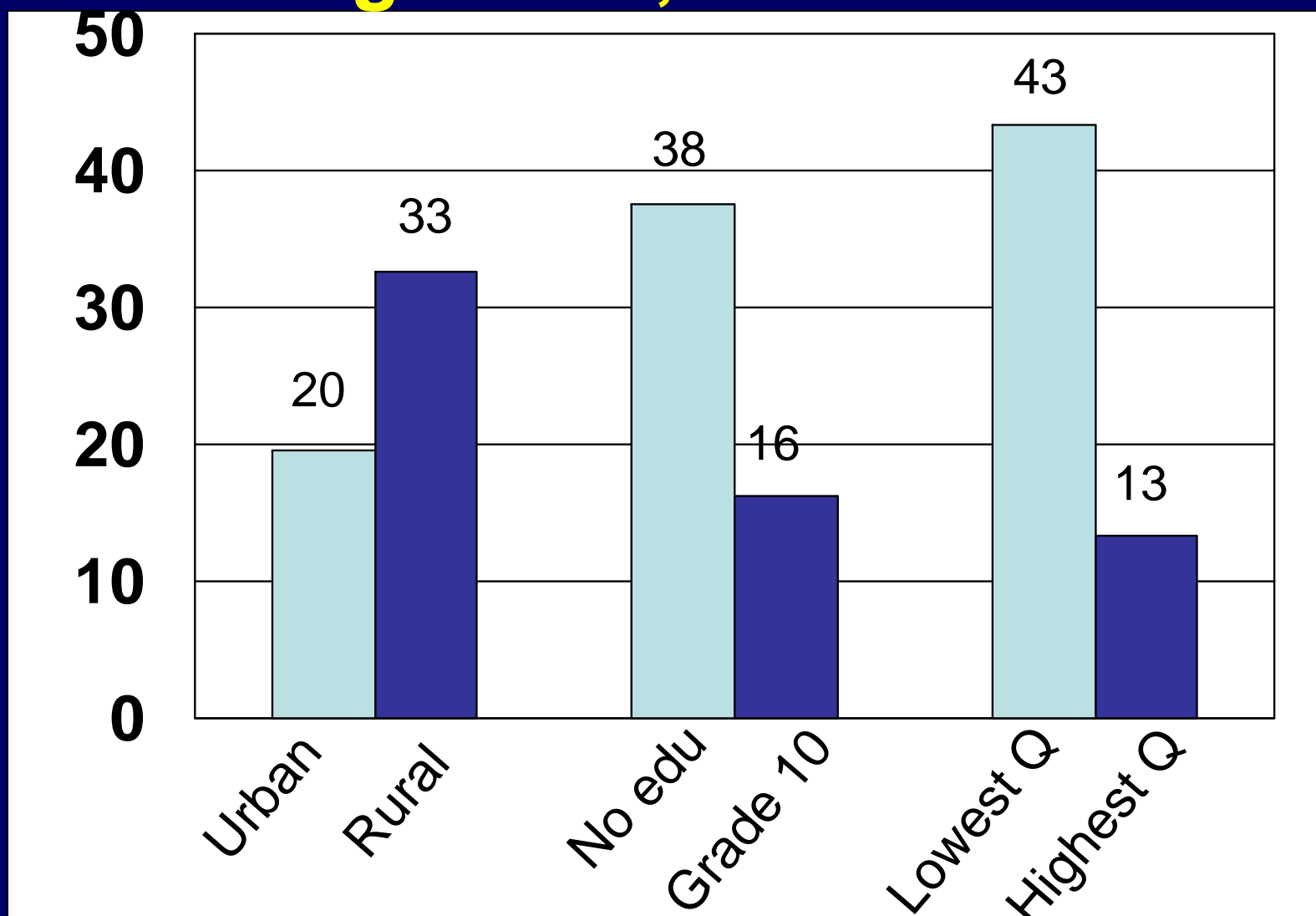
Effects of low Body Mass Index

- Suffer more from illnesses
- Have impaired work capacity
- Reduced social activity
- Have lower income
- Suboptimal child care

Shetty PS, James WPT 1994



Determinants of CED of Women in Bangladesh, BDHS 2007



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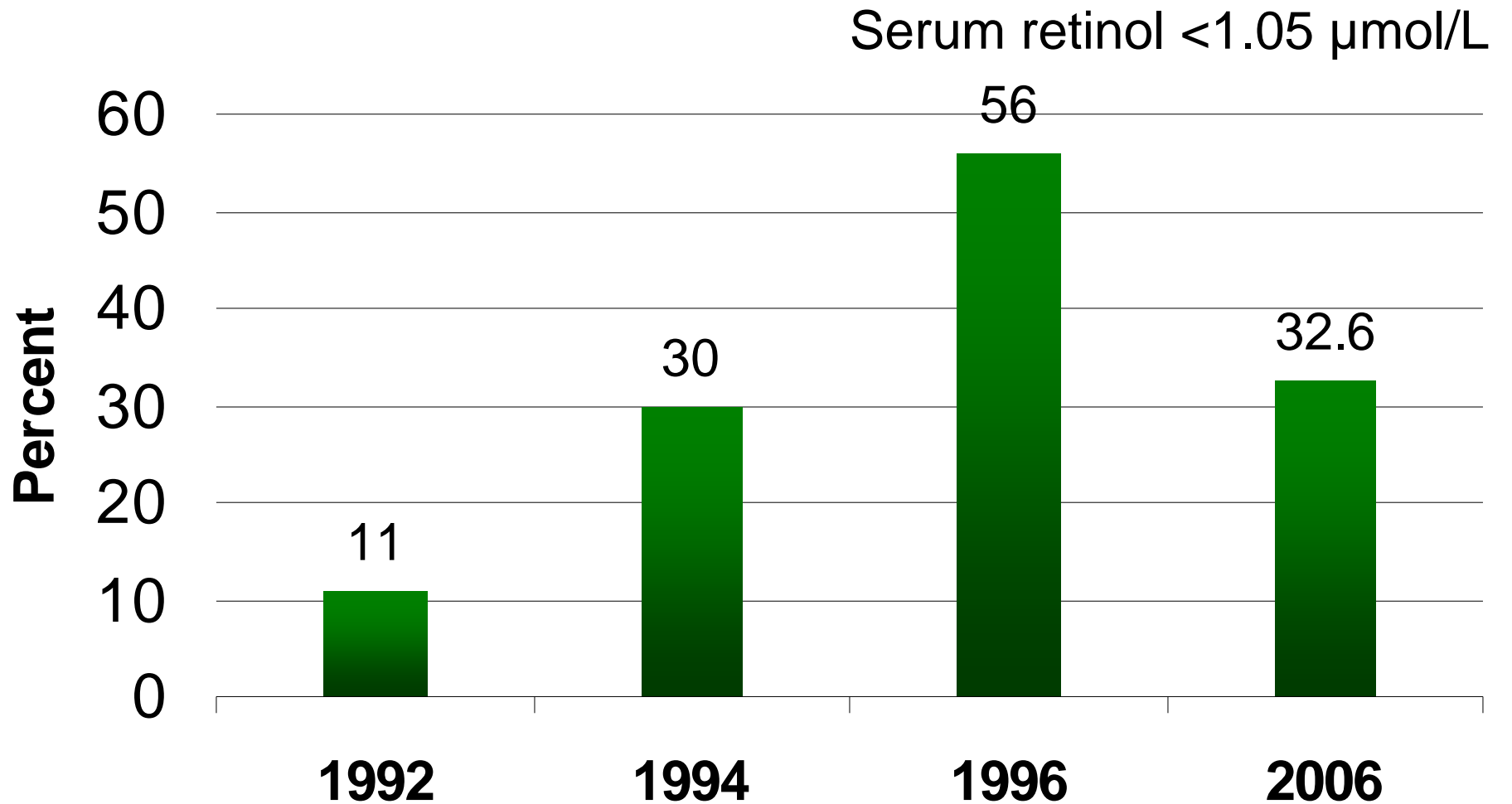
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Factors predicting
CED among
women in
Bangladesh

Ahmed SM 1998

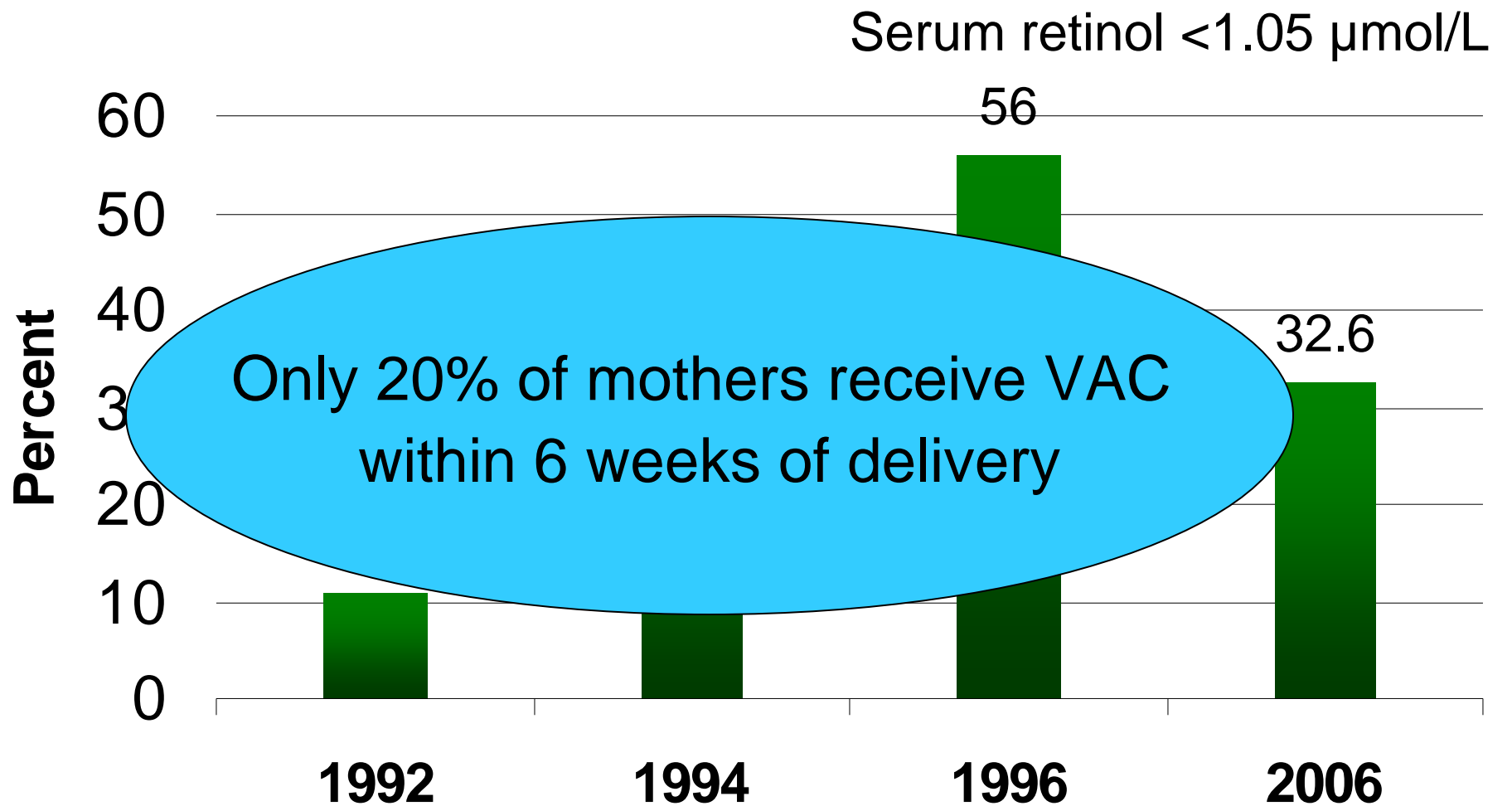
	Odds ratio	<i>p</i> value
Age (years)		
15–24	1·00	—
25–34	1·11	0·561
35+	2·08	0·000
Years of schooling		
None	1·00	—
1–5	0·66	0·002
5+	0·48	0·000
Total living children		
≤2	1·00	—
3–4	0·96	0·786
5+	0·75	0·124
Socioeconomic status		
Poor	1·00	—
Better off	0·77	0·030
No. times married		
Once	1·00	—
More than once	1·41	0·115

Subclinical Vitamin A Deficiency in Women and Adolescent Girls



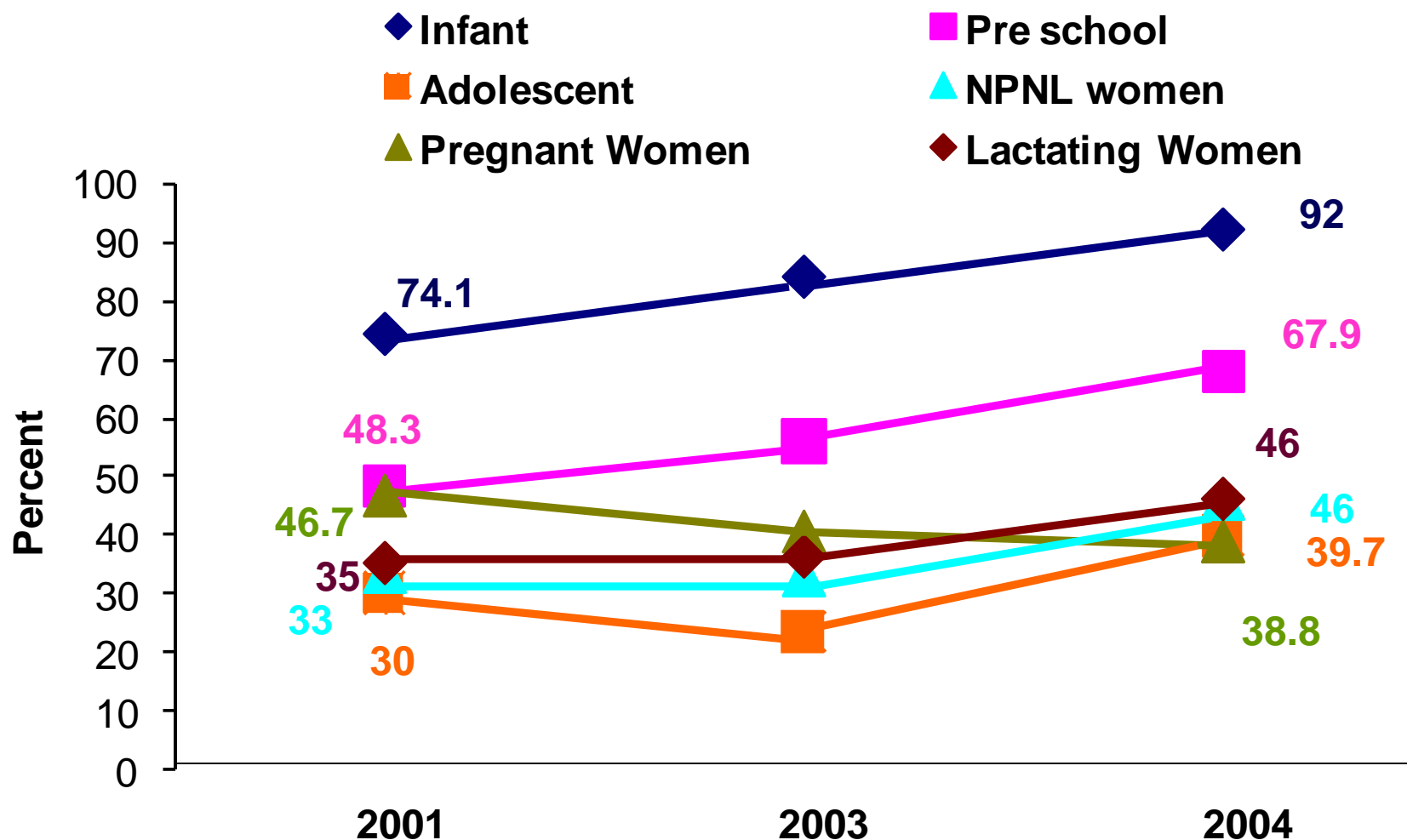
Ahmed F 1998; Lee V 2008

Subclinical Vitamin A Deficiency in Women and Adolescent Girls



Ahmed F 1998; Lee V 2008

Anemia Prevalence Trends in Bangladesh



***There has been some improvement
but more is required***



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Achievements in Maternal and Child Nutrition are many....

- Reduction in child & maternal undernutrition
- Increase in land acreage and yield
- Home grown cadre of nutrition 'activists'
- Nutrition Task Group at the MOHFW
- MN including VA & zinc for treatment of diarrhea



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Contextual Factors also Contributed to the Achievements

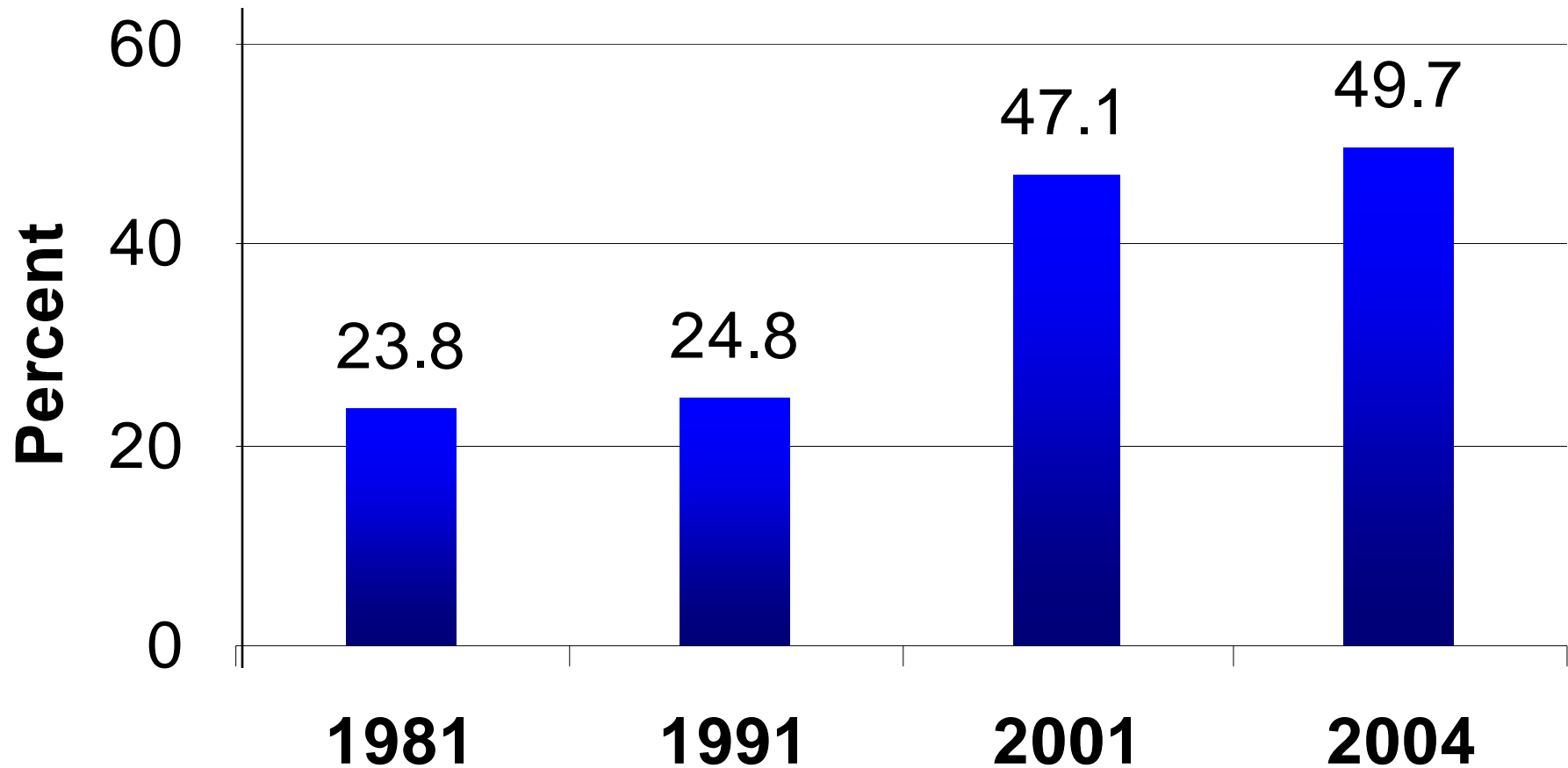
- Increase in literacy, particularly among women
- Reduction in family size
- Rural electrification
- Road communication
- Microcredit movement



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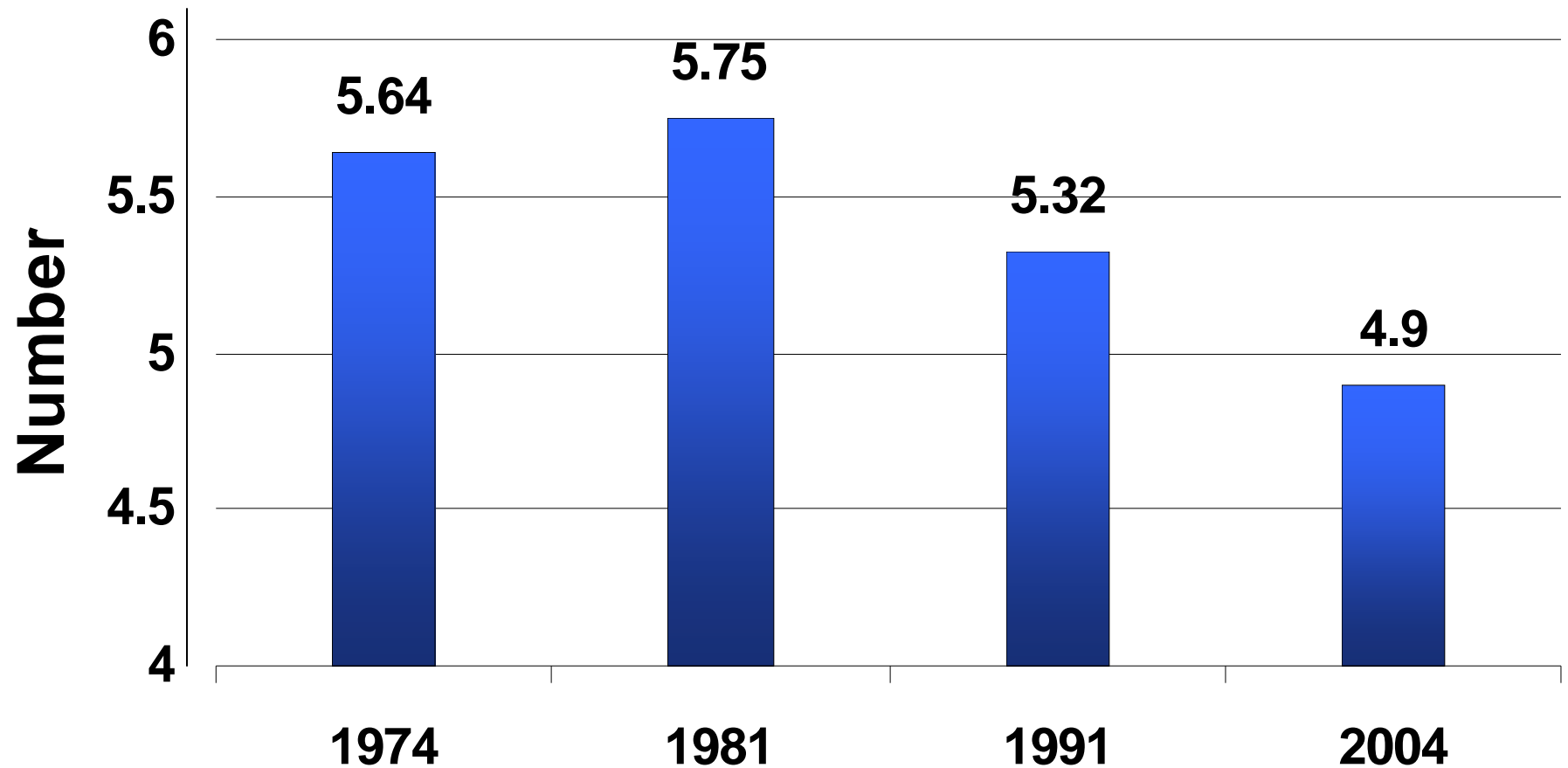
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Adult Literacy has Increased



BBS Statistical Year Books 2004, 1991, 1983

Families in Bangladesh are now smaller

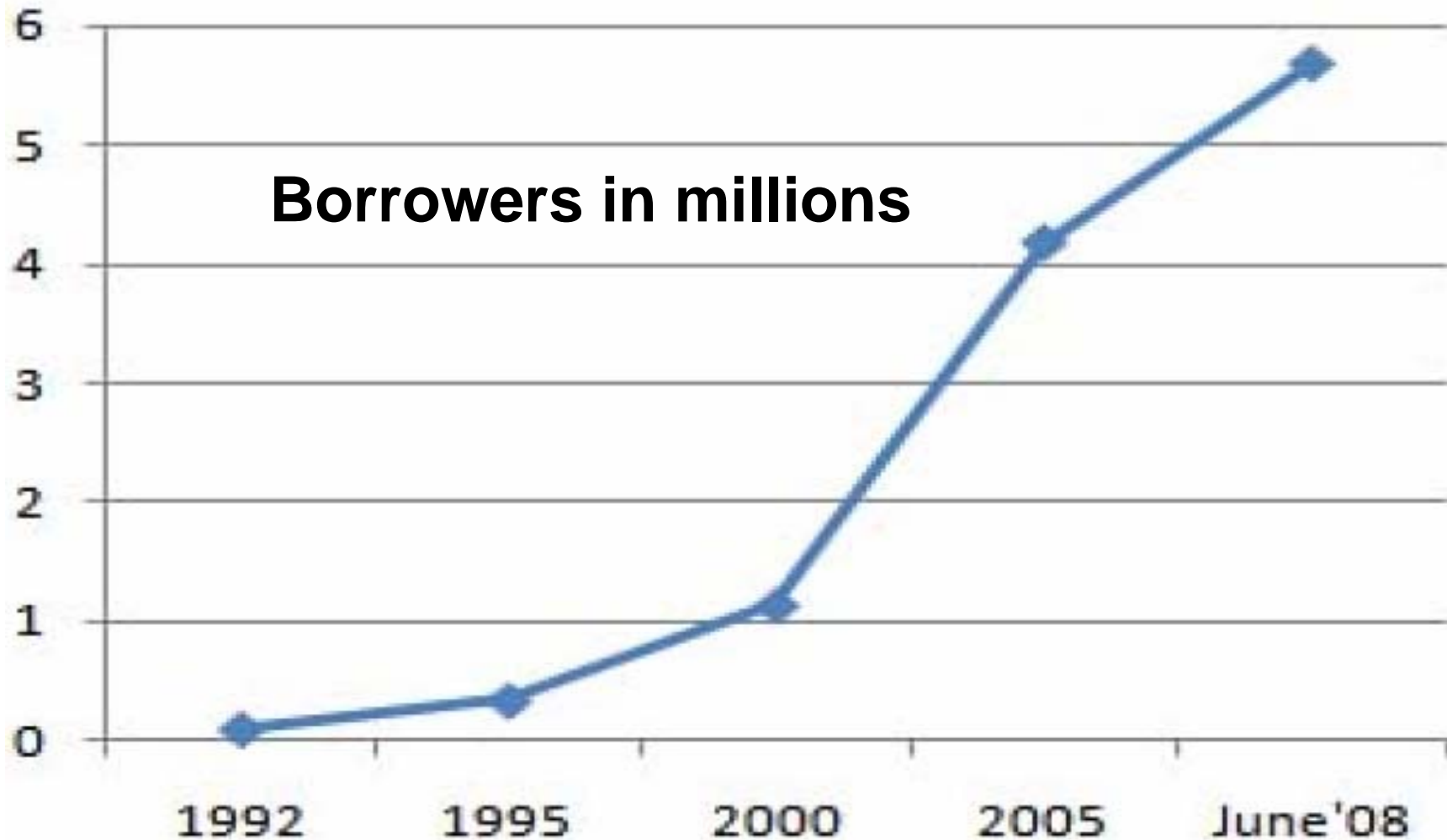


BBS Statistical Year Book 2004, 1991, 1983

Poverty reduction in Bangladesh

Per capita consumption in kcals	1995-96	2000
<2122 kcal Absolute poverty	45%	43%
<1805 kcal Hard core poverty	24%	19%
<1600 kcal Ultra poverty	14%	8%

The Increase of Microcredit Coverage



Effect of Microcredit Membership on Health Care Seeking Behavior

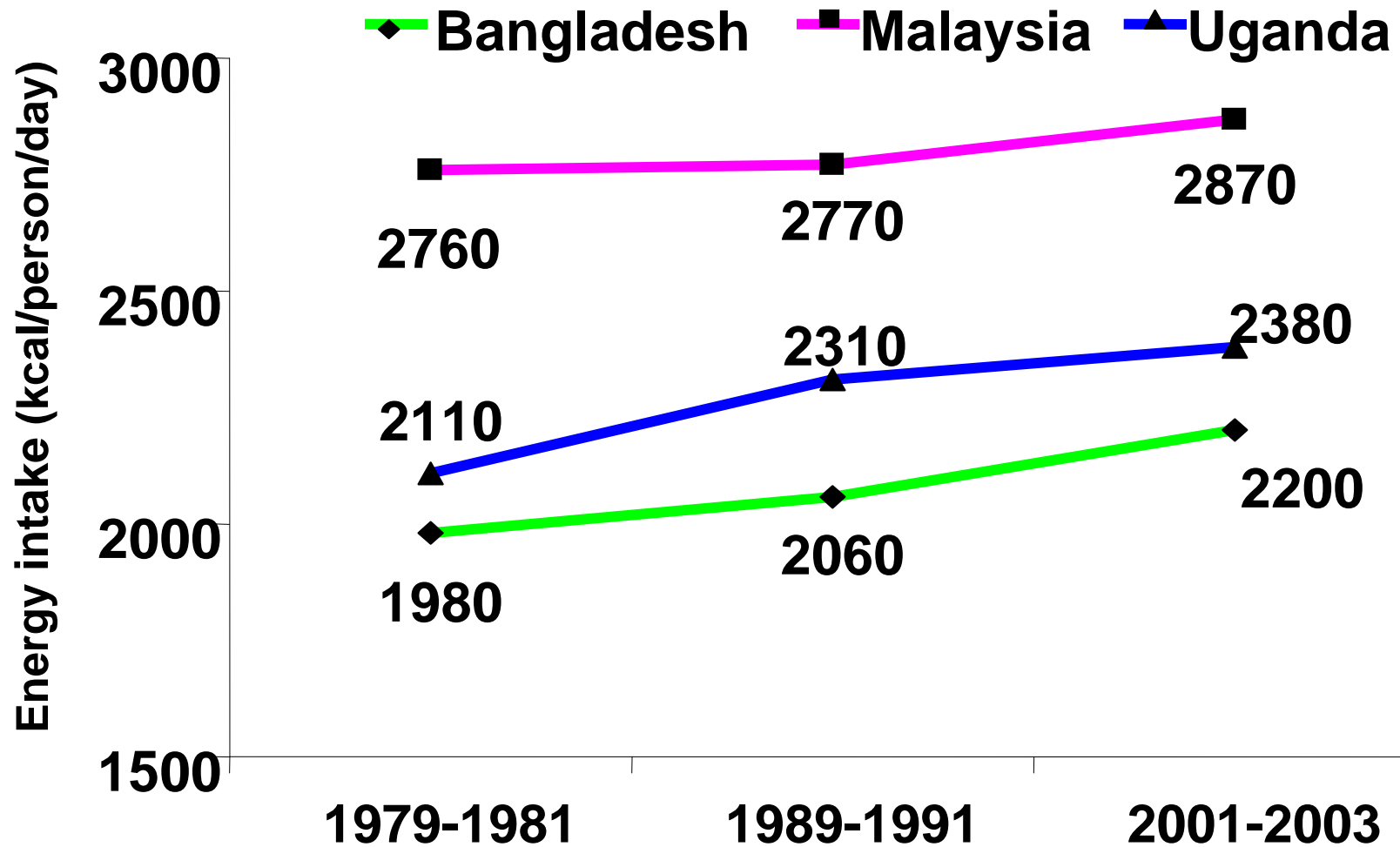
	NGO credit membership	p
Contraceptive use	1.533	<0.01
Use of satellite clinic	2.423	<0.05
Use of static clinic for EPI	1.539	<0.05
Use of static clinic for minor illness	1.613	<0.05
Use of static clinic for major illness	1.010	NS
Use of static clinic for nutritional supplements	1.597	<0.01

Food Balance Sheet in Bangladesh

	Rice	Wheat	Total
Domestic availability	32 349	1 840	33 688
Total production	28 849	840	29 188
Total utilization	33 226	4 033	37 259
Total Imports	877	2 193	3 070

(1000 tones)

Trends in Energy Intake



What can we do to control anemia?



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Reasons for Not Taking IFA Tablets Regularly

Reasons	N=1741 pregnant women, %
Side effects (diarrhea, etc)	25.5
Forget to take	19.5
Did not consider necessary	16.3
Lack of supply	12.0
Do not receive enough tablets	6.1
Economic constrains	4.5
Objection of family members	1.9
Lost tablets	0.2
Others	7.8

- First of all, take lessons from successful programs, eg EPI, vitamin A
- Conduct a nationally representative survey on the recent prevalence & causes of anemia
- Promote factors that will increase coverage of IFA supplementation
 - Effective counseling
 - Sustained supply
 - Appropriate packaging
 - Mass media coverage
 - Trained workforce



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- Increase exclusive breastfeeding rates
- Improve complementary feeding practices by using various foods rich in iron
- Consider home-based fortification of CF using micronutrient powder (sprinkles)
- Coordinate efforts of different agencies and the private sector in control of anemia



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Huge Problems still Remain

- Very high population density, calamities
- Lack of priority on nutrition
- Not acting at scale
- Inadequate human resources
- Poor accountability – public sector & NGOs
- Poor monitoring & evaluation
- Lack of coordination, vested interests

Interventions during Pregnancy and Lactation

- **Anemia affects 40% women during pregnancy and lactation**
 - Only 55% women take iron-folic acid tablets during pregnancy
 - Issues related to compliance, adverse effects, stock outs need to be addressed
- **Post-partum vitamin A supplementation**
 - One in 5 women goes to a health care provider and receives a Vitamin A supplement after child birth
 - Increase post-natal care rates and the quality of care

Service Delivery has to Improve

- Breastfeeding & complementary feeding practices should be improved. This requires improved counseling for behavior change.
- Undernutrition hotspots need special attention
 - Monga-prone areas in the north
 - The coastal belt and char areas
 - Areas in Chittagong & Sylhet divisions with higher prevalence of child malnutrition
 - Rat-infested areas in the Hill Tracts

Service Delivery has to Improve

- The National Nutrition Program provides a good opportunity for improving nutrition
 - Increase coverage from around 25% to 70-80%
 - Need to shift from the current emphasis on food supplementation to improved nutrition through better counseling

Coverage is most important !

	Reduction in deaths	Reduction in stunting
99% coverage	25%	35%
90 % coverage	22%	32%
70 % coverage	17%	27%

Bhutta ZA, Ahmed T, et al. The Lancet 2008