

HIV-AIDS



First Edition

June 2015 Jyaishta 1937

Reprinted

July 2019 Ashadha 1941, June 2020 Jyeshtha 1942

PD 12T RPS

© National Council of Educational Research and Training, 2015

OFFICES OF THE PUBLICATION DIVISION, NCERT

NCERT Campus, Sri Aurobindo Marg, New
Delhi 110 016
Phone : 011-26562708

108, 100 Feet Road, Hosdakere Halli Extension,
Banashankari III Stage, Bangalore 560 085
Phone : 080-26725740

Navjivan Trust Building, P.O.Navjivan,
Ahmedabad 380 014
Phone : 079-27541446

CWC Campus, Opp. Dhankal Bus Stop,
Panihati, Kolkata 700 114
Phone : 033-25530454

CWC Complex, Maligaon, Guwahati 781 021
Phone : 0361-2674869

ALL RIGHTS RESERVED

- ❑ No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior permission of the publisher.
- ❑ This book is sold subject to the condition that it shall not, by way of trade, be lent, re-sold, hired out or otherwise disposed of without the publisher's consent, in any form of binding or cover other than that in which it is published.
- ❑ The correct price of this publication is the price printed on this page, Any revised price indicated by a rubber stamp or by a sticker or by any other means is incorrect and should be unacceptable.

₹ 35.00

Publication Team

Head, Publication Division : Anup Kumar Rajput
Chief Editor : Shveta Uppal
Chief Production Officer : Arun Chitkara
Chief Business Manager : Vipin Dewan
Production Assistant : Mukesh Gaur

Cover, Layout and Illustrations

The Banyan Tree

Printed on 80 GSM paper

Published at the Publication Division by the Secretary, National Council of Educational Research and Training, Sri Aurobindo Marg, New Delhi 110 016 and printed at Dewan Print House N-26, Sector-2, DSIIIDC Bawana Industrial Area, Delhi 110 039.

ISBN 978-93-5007-339-1

About the Book

In this booklet, an attempt has been made to raise awareness on how to handle lifestyle related issues effectively.

It deals with health issues related to our daily habits, like, eating a balanced diet, exercise and hygiene. While dealing with everyday good and healthy habits matters relating to diabetes, HIV Aids and such issues have also been dealt with.

Simple and communicative language has been used in the booklet so that children in the age group of 10–16 years can understand it easily. We hope that the readers will benefit from this material and have confidence to handle such kind of issues and prove to be smart and responsible citizens.

It is suggested that the teachers and facilitators use this as an example to develop related material for school projects. The teachers could also share these projects and hold awareness programmes for the community with an aim to initiate continuous participation in similar issues related to lifestyle.

The Council also welcomes the suggestions from the users of this material.

HIV-AIDS



Aman



Nandni



Dr Prakash



Mother

Children are returning from school a little curious and excited.





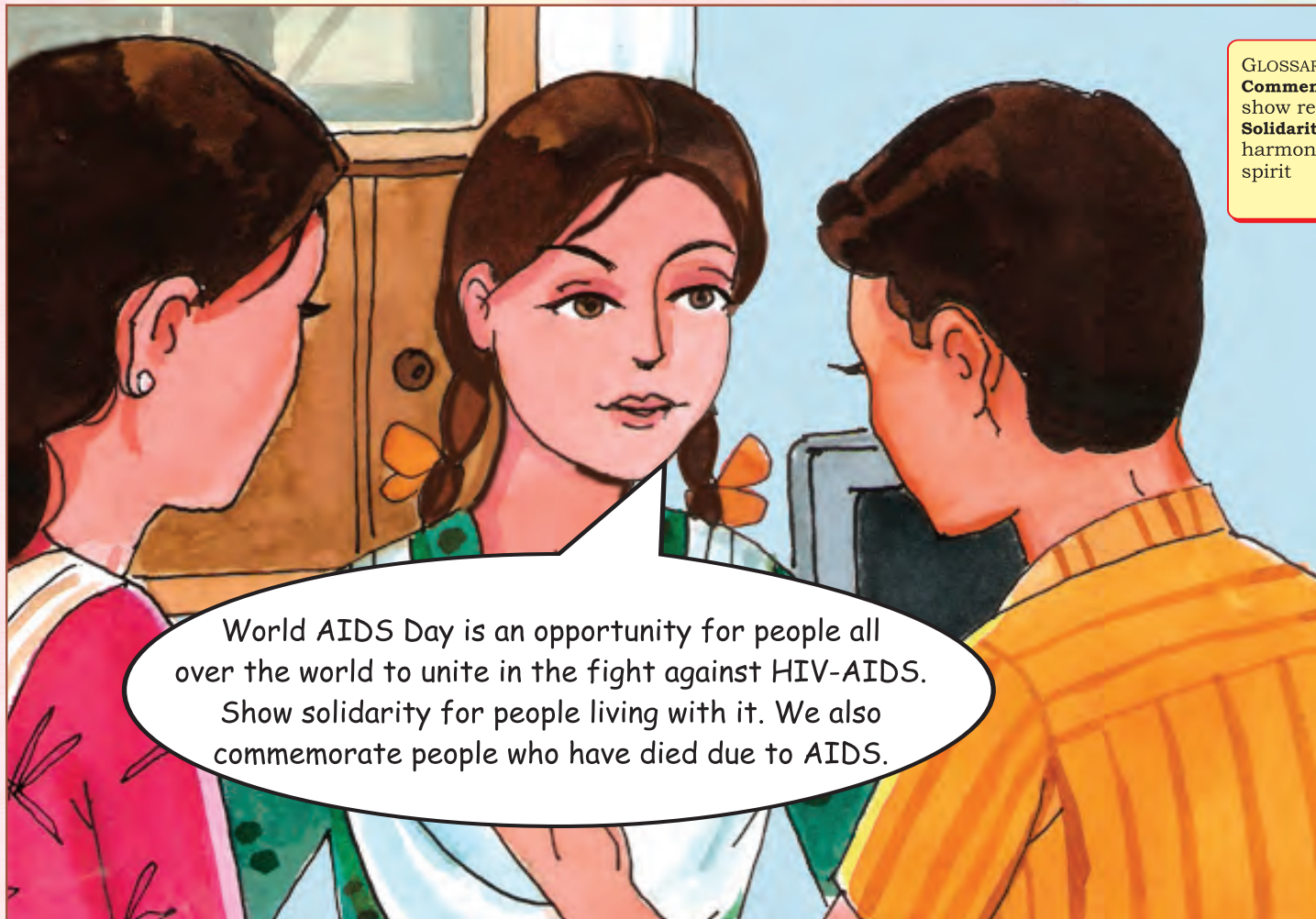




Maa don't you remember tomorrow is
1st December — World AIDS Day.
We have to wear red ribbons to
spread HIV-AIDS awareness.

Oh yes!
It is observed every year
since 1988.

Nandni, why do we
observe this day?

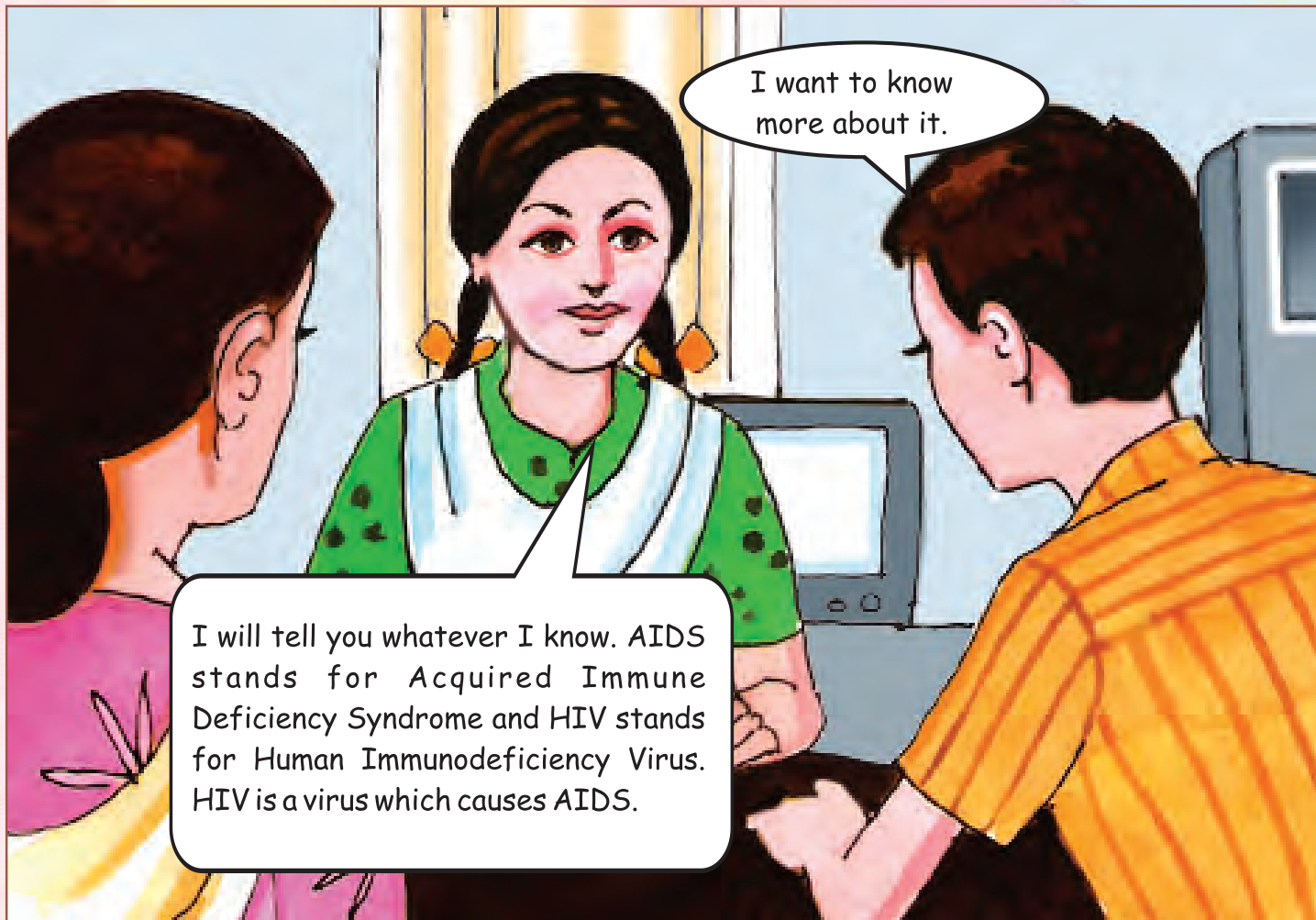


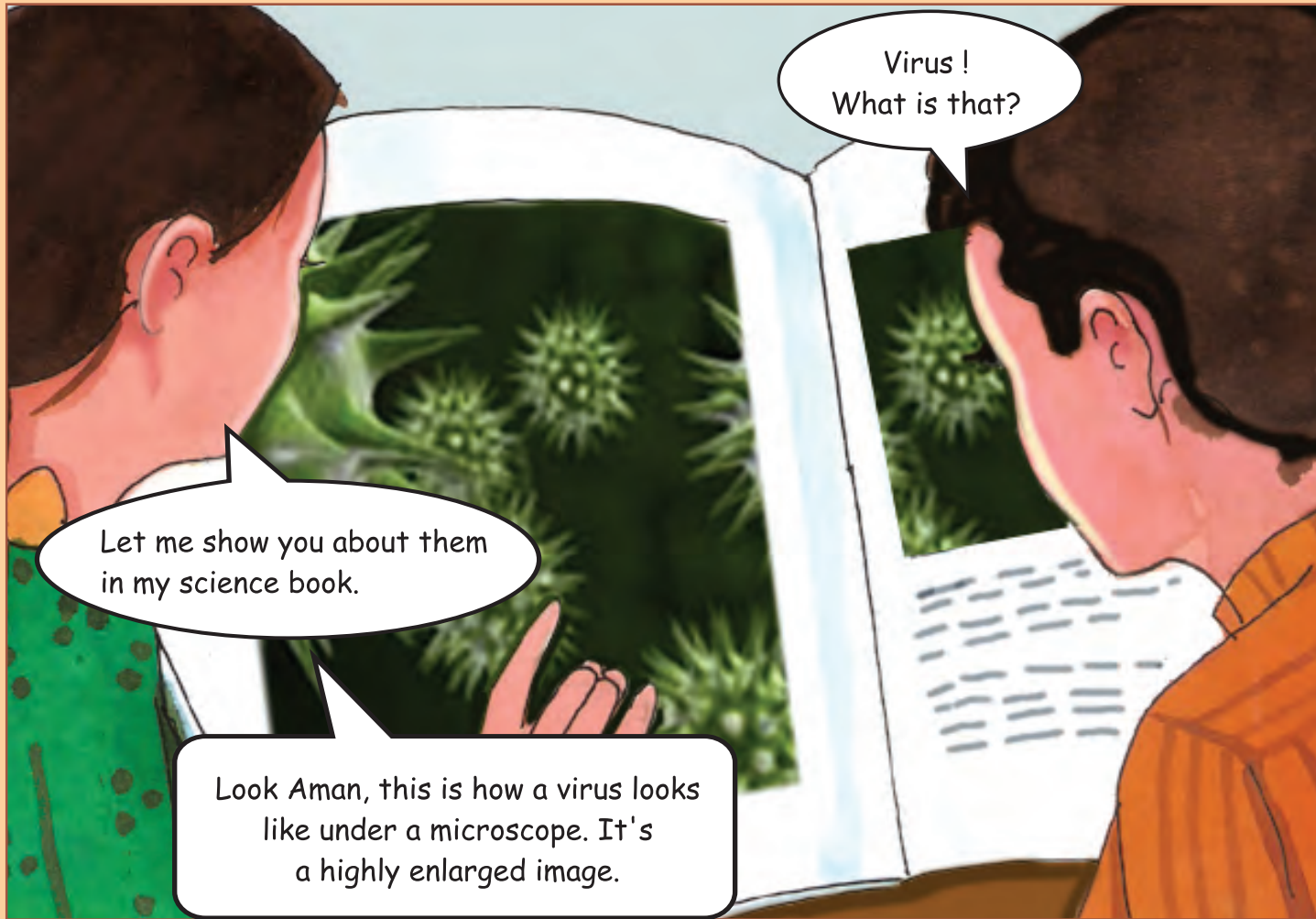
GLOSSARY
Commemorate –
show respect to
Solidarity –
harmony, team
spirit



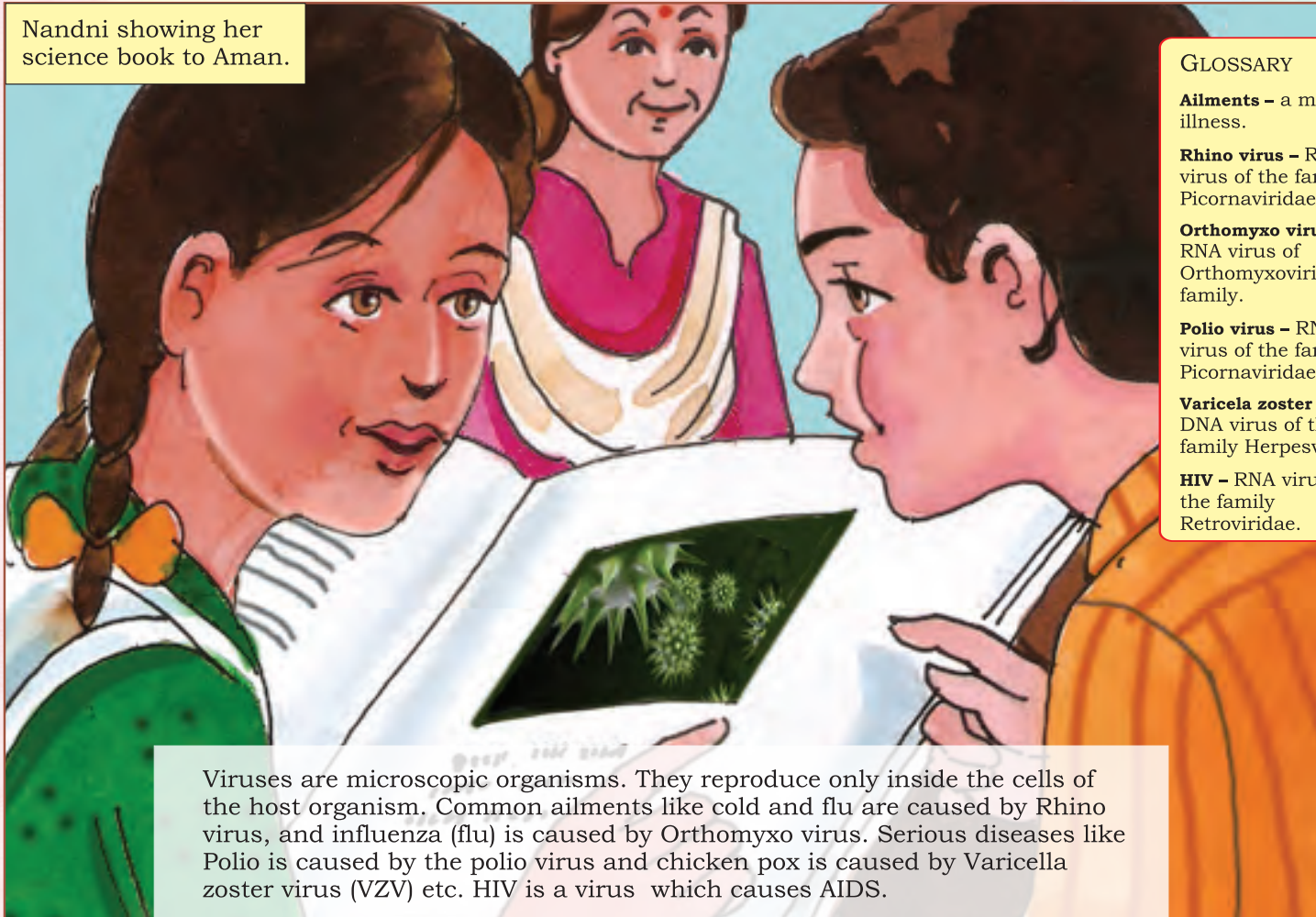
It is really scary!! I have heard that AIDS is affecting a large number of people including children around the world

Yes, AIDS does not differentiate between people; which country you belong to, or what colour of skin you have or how old you are.





Nandni showing her science book to Aman.



GLOSSARY

Ailments – a minor illness.

Rhino virus – RNA virus of the family Picornaviridae.

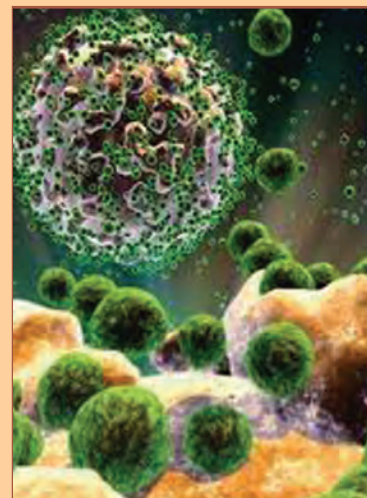
Orthomyxo virus – RNA virus of Orthomyxoviridae family.

Polio virus – RNA virus of the family Picornaviridae.

Varicella zoster virus – DNA virus of the family Herpesviridae.

HIV – RNA virus of the family Retroviridae.

Viruses are microscopic organisms. They reproduce only inside the cells of the host organism. Common ailments like cold and flu are caused by Rhino virus, and influenza (flu) is caused by Orthomyxo virus. Serious diseases like Polio is caused by the polio virus and chicken pox is caused by Varicella zoster virus (VZV) etc. HIV is a virus which causes AIDS.





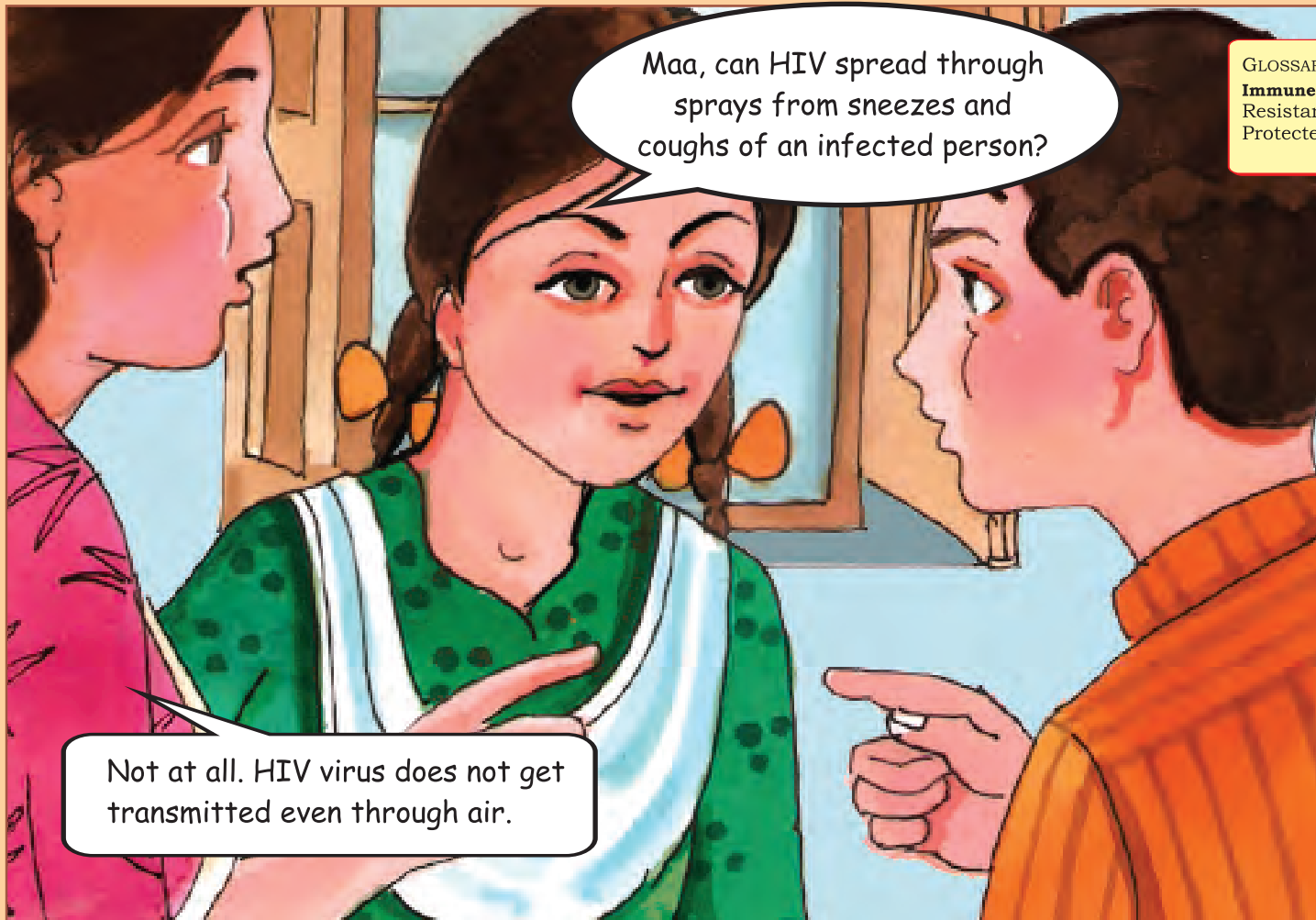


The immune system is a network of cells, tissues and organs that work together to defend the body against attacks by foreign invaders, primarily, in the form of tiny microbes such as bacteria, parasites, and fungi that can cause infections. Viruses also cause infection. The human body provides an ideal environment for the growth of many microbes. But, with a healthy immune system, the body continuously defends itself against the microbes and if they enter the body, it reacts and destroys them. However, in an HIV infected person, over time, the virus can weaken the body to such a point that the immune system has difficulty in fighting off even those microbes which may not cause any harm to the person. These types of infections are known as opportunistic infections. They can cause problems or even be life-threatening in someone with HIV/AIDS.



Maa, I have read that viruses get transmitted through casual contact. Does this virus also get transmitted like this?

No, No! It is not like that. You cannot get HIV just by 'casual contact' such as shaking hands, exchanging hugs, sharing toilets and bath towels.

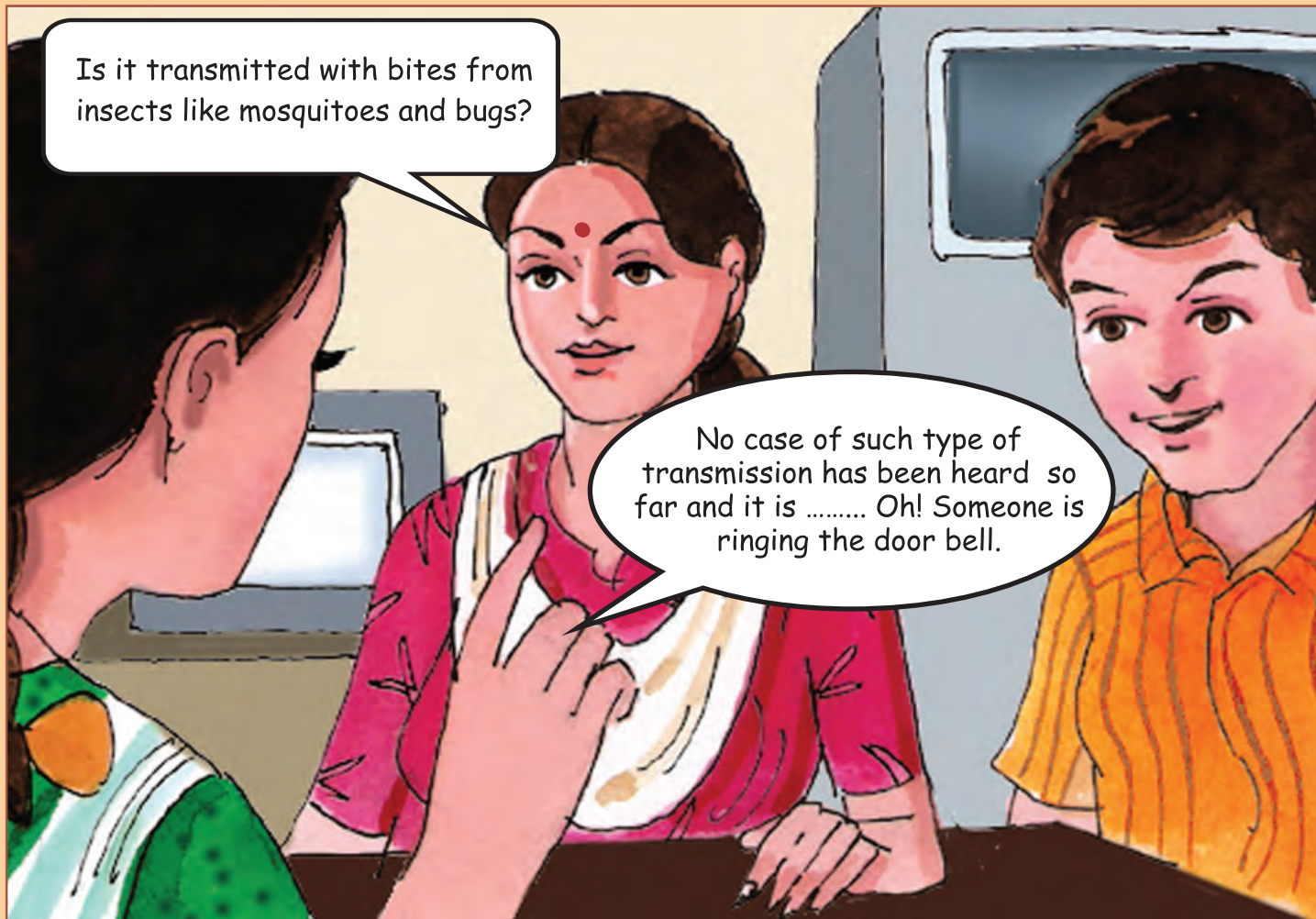


Maa, can HIV spread through sprays from sneezes and coughs of an infected person?

Not at all. HIV virus does not get transmitted even through air.

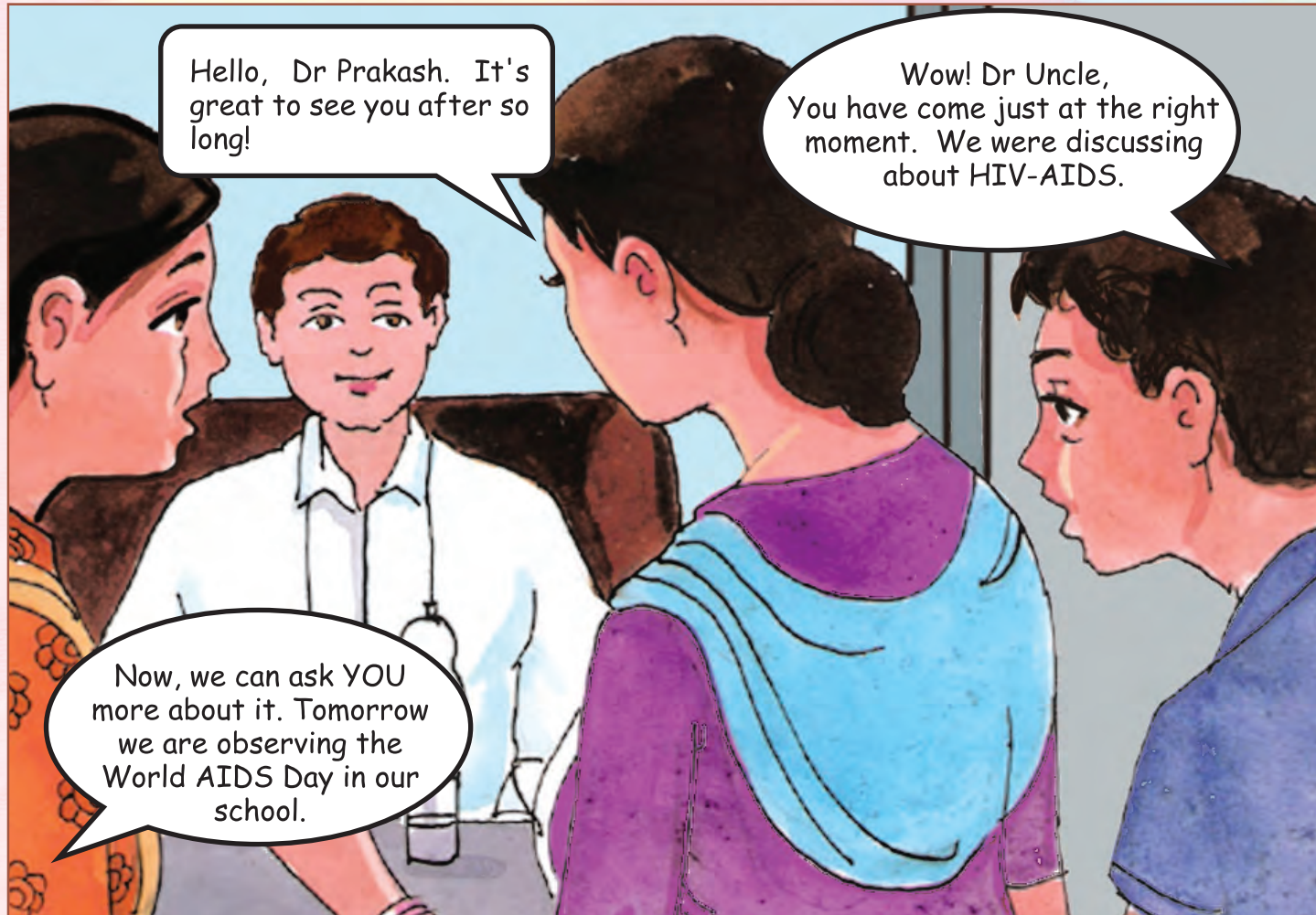
GLOSSARY
Immune –
Resistant,
Protected

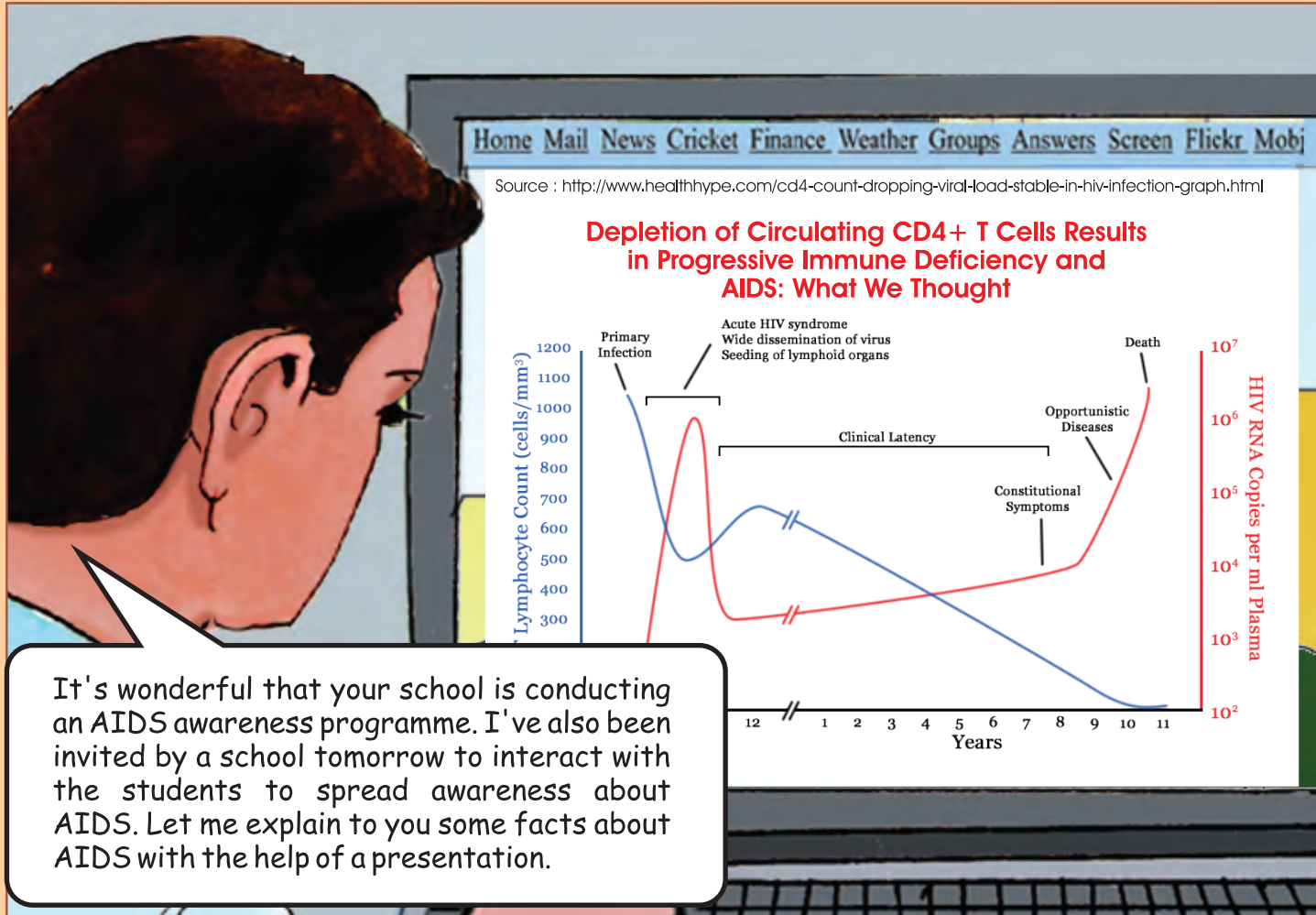


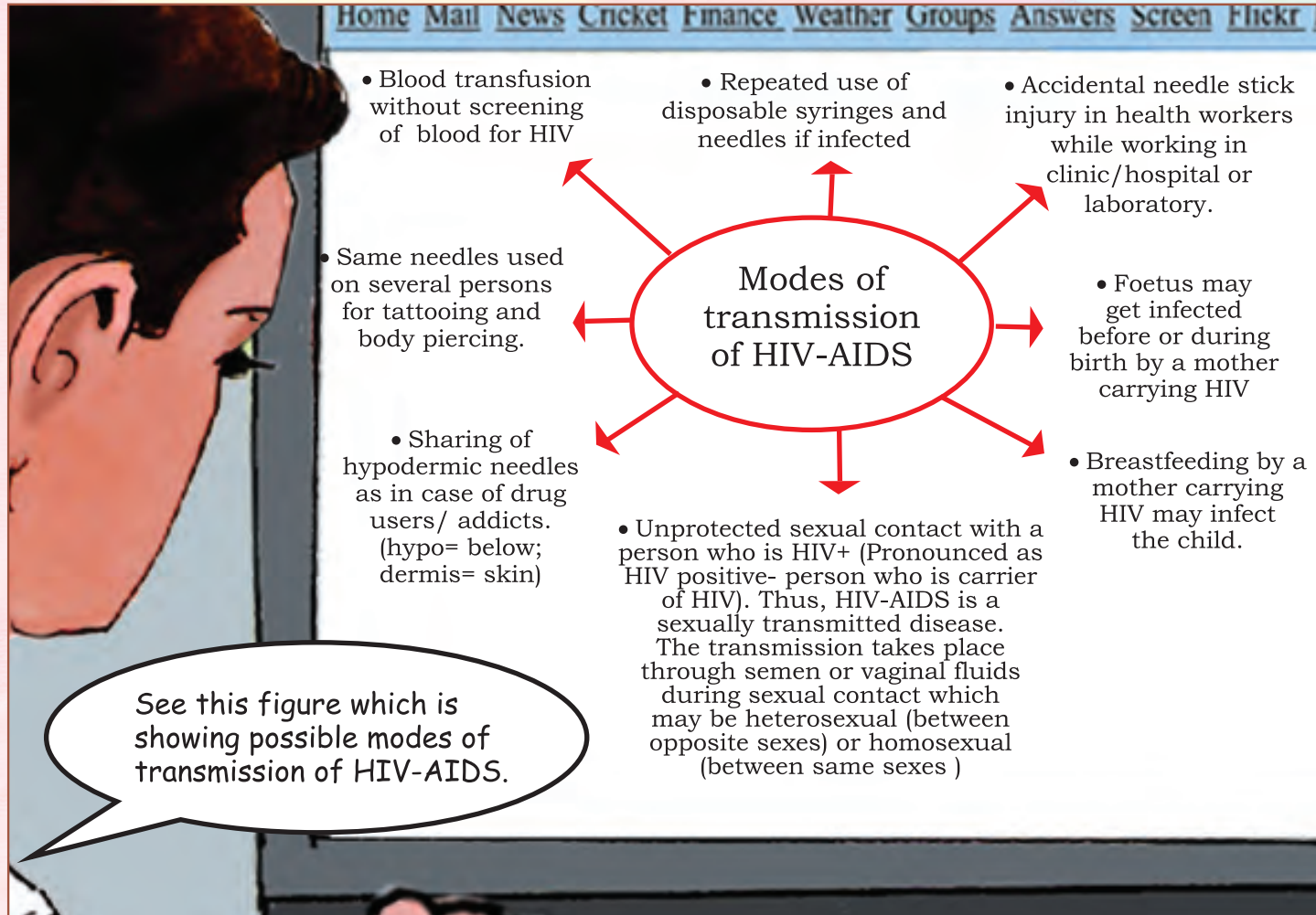


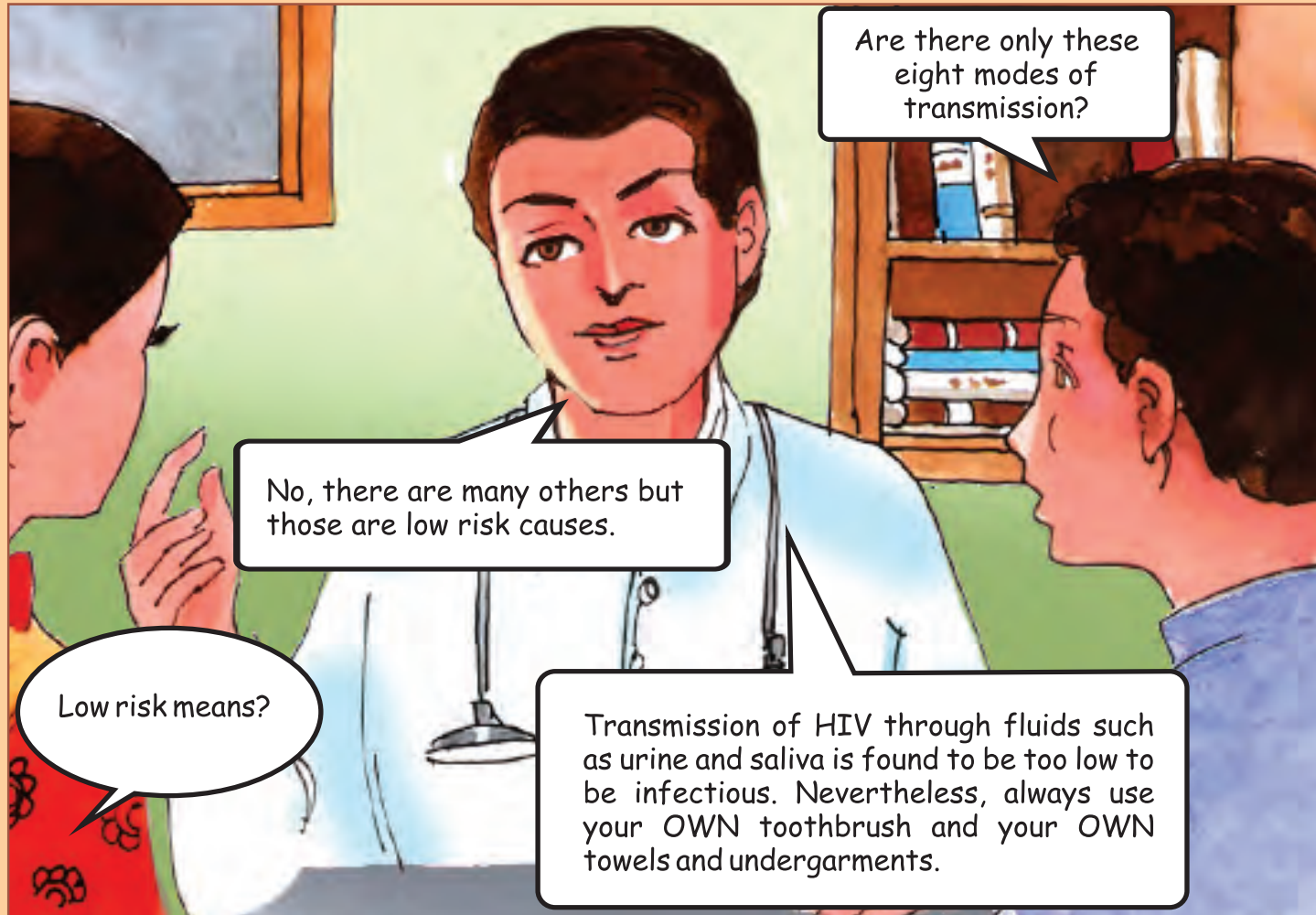
Is it transmitted with bites from insects like mosquitoes and bugs?

No case of such type of transmission has been heard so far and it is Oh! Someone is ringing the door bell.









Are there only these eight modes of transmission?

No, there are many others but those are low risk causes.

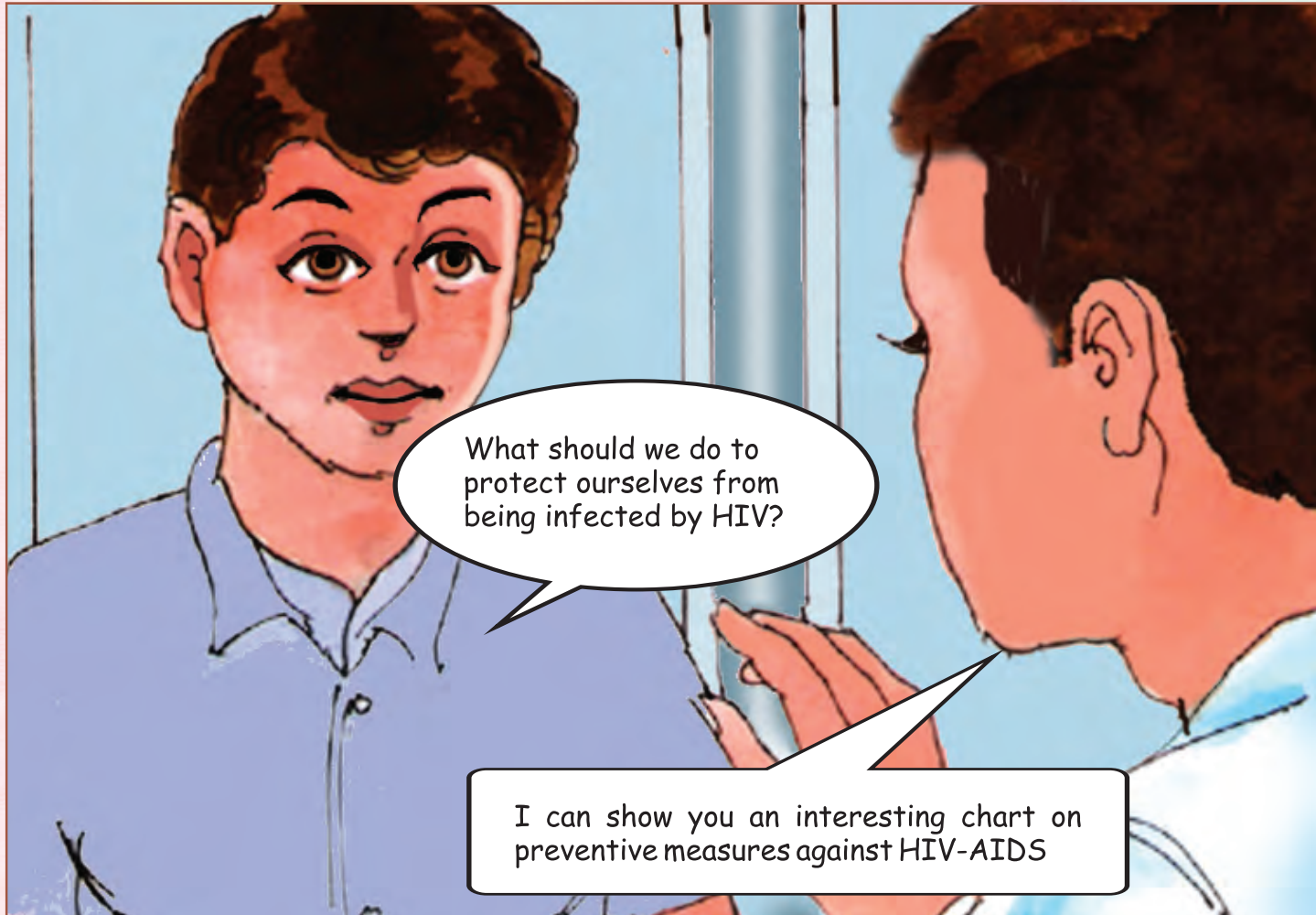
Low risk means?

Transmission of HIV through fluids such as urine and saliva is found to be too low to be infectious. Nevertheless, always use your OWN toothbrush and your OWN towels and undergarments.





STDs are also called Sexually Transmitted Infections (STIs). These are generally acquired by sexual contact with an **infected person**. Some of these can also be transmitted non-sexually, such as from mother to infant during pregnancy or childbirth, or through blood transfusions or shared needles.



PREVENTIVE MEASURES AGAINST HIV-AIDS

GLOSSARY

Resuscitation – to revive from unconsciousness

When you need blood transfusion,

make sure it has been properly tested for safety.

When you visit a barber,

insist on new blades and scissors and razors sterilised with antiseptics.

When taking injections,

make sure a fresh disposable syringe and needle is being used.

When getting a tattoo or body piercing done,

the needles used should not be shared without proper sterilisation.

When brushing teeth and using dental floss,

use personalised belongings.

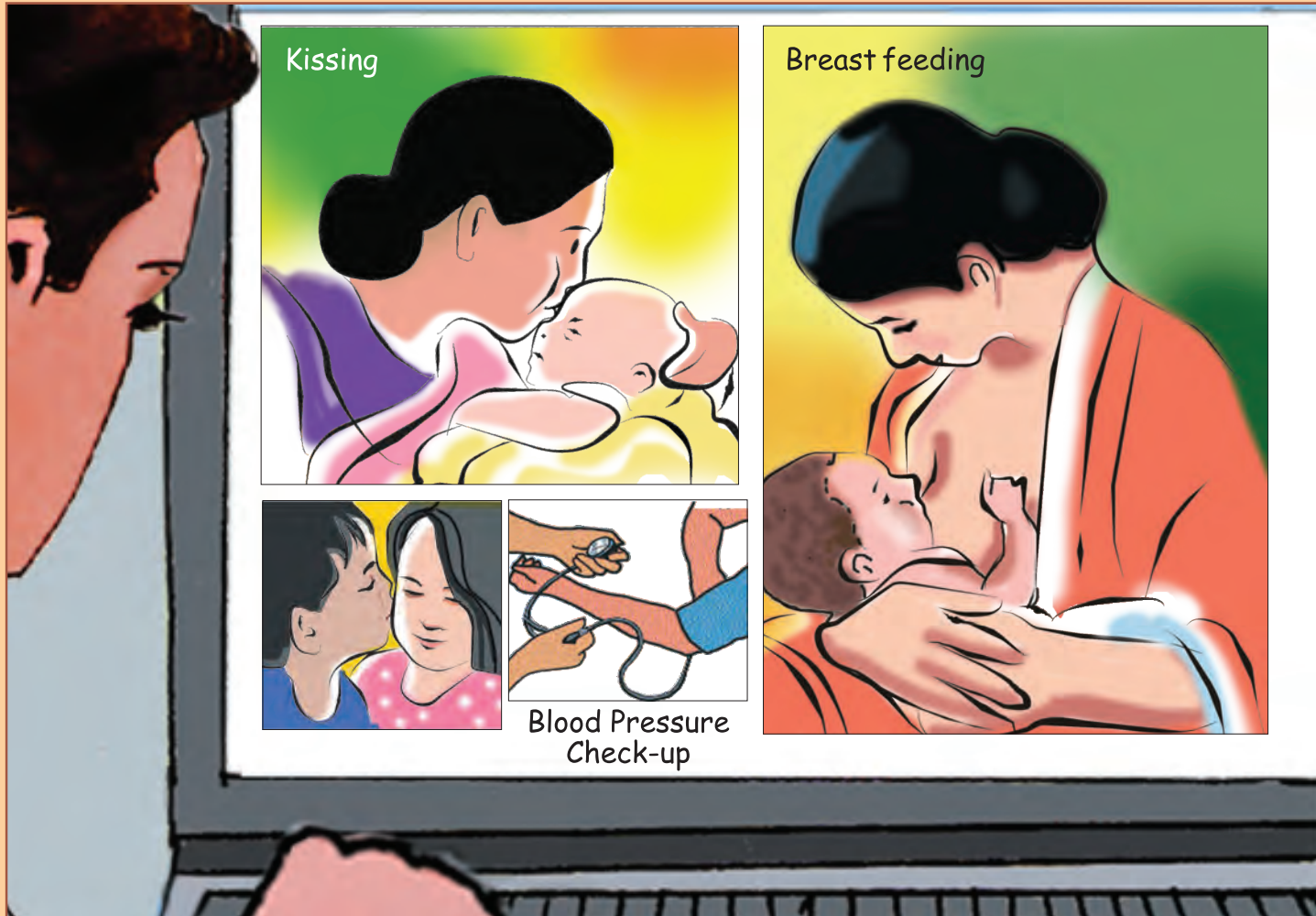
When sucking out venom from the wound of snake bite victim or giving mouth to mouth resuscitation,

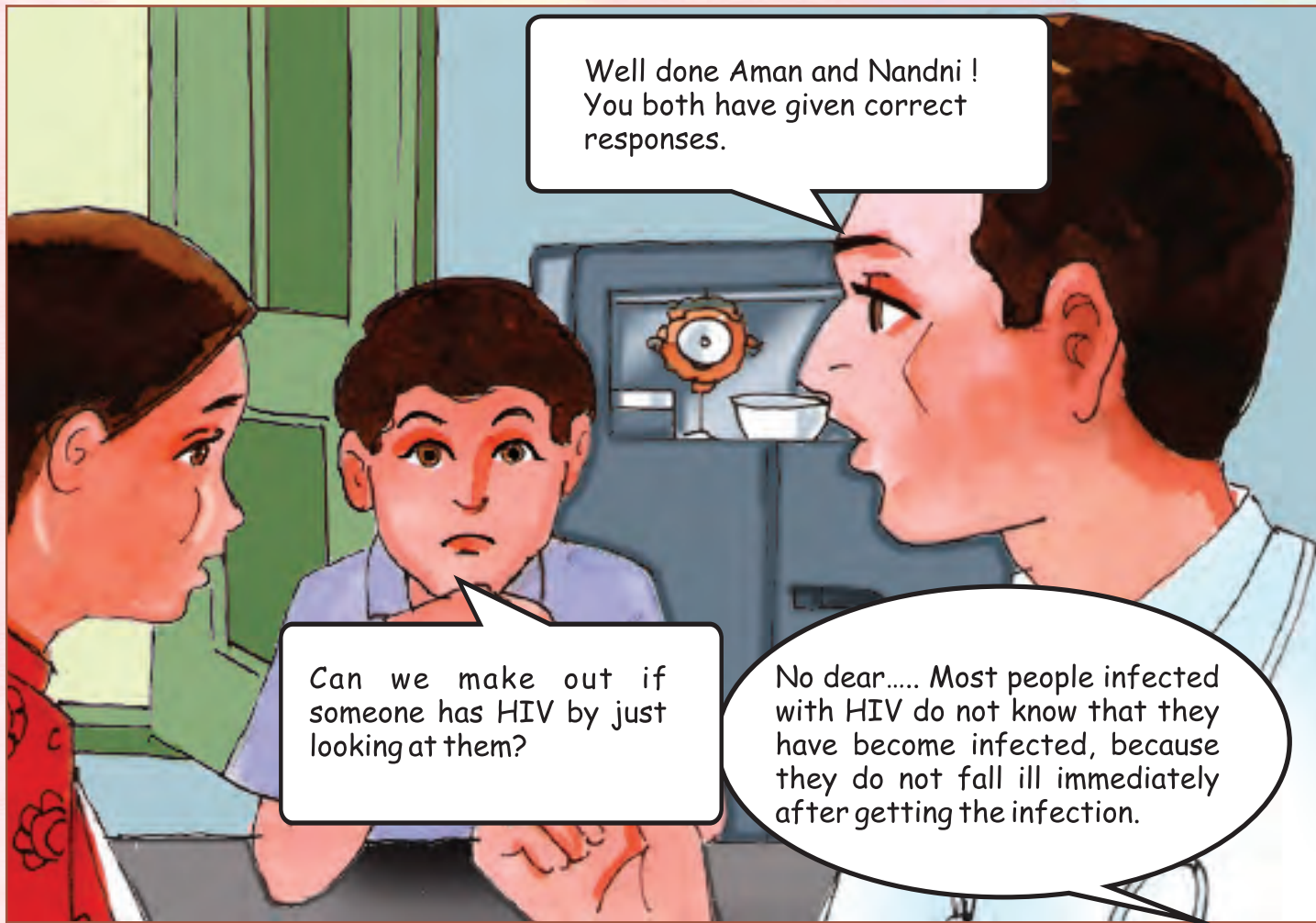
make sure there are no lacerations (open cuts and wounds) in your mouth.

During sexual act,

use condoms as it does not allow fluids to enter a person's body.



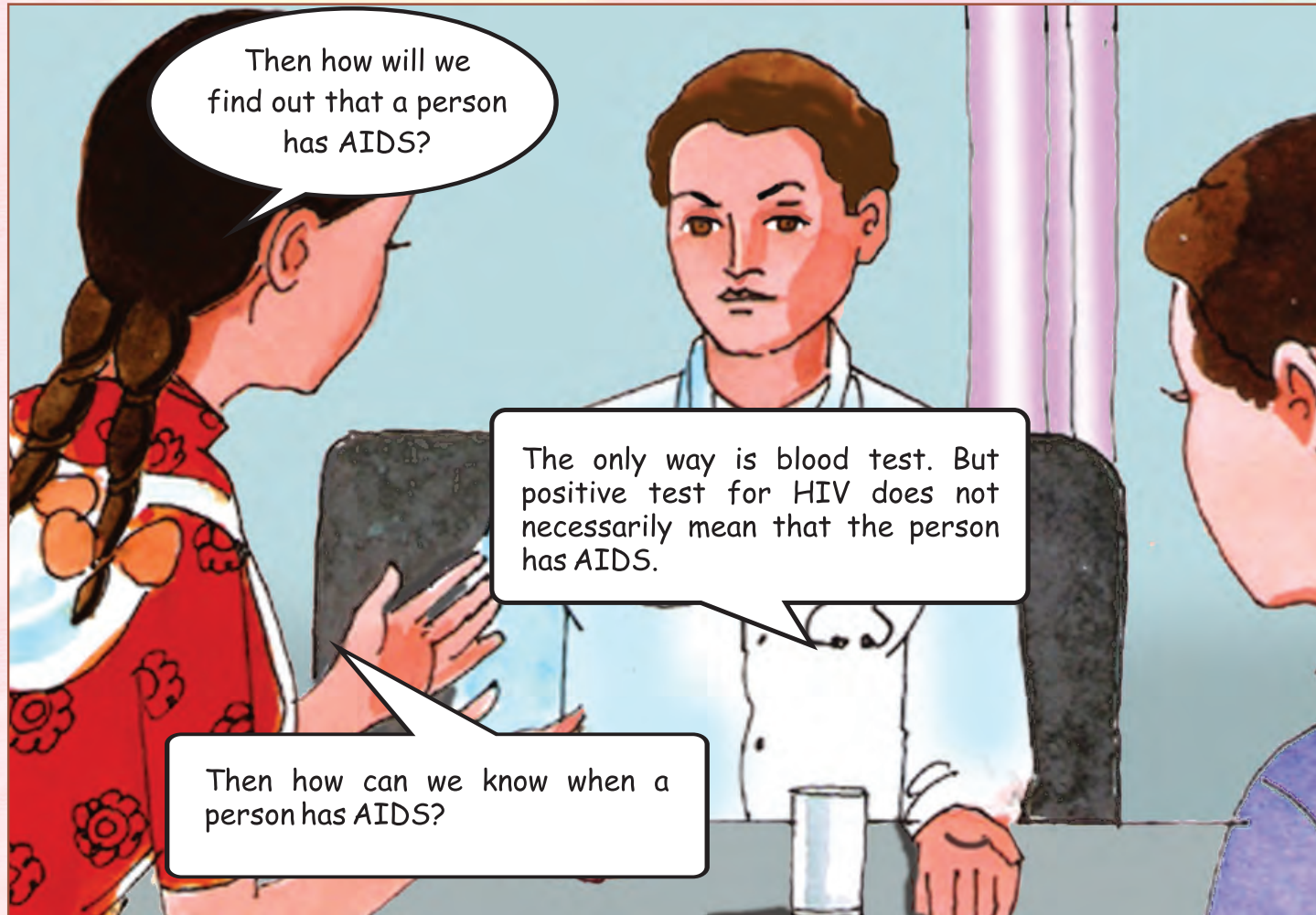


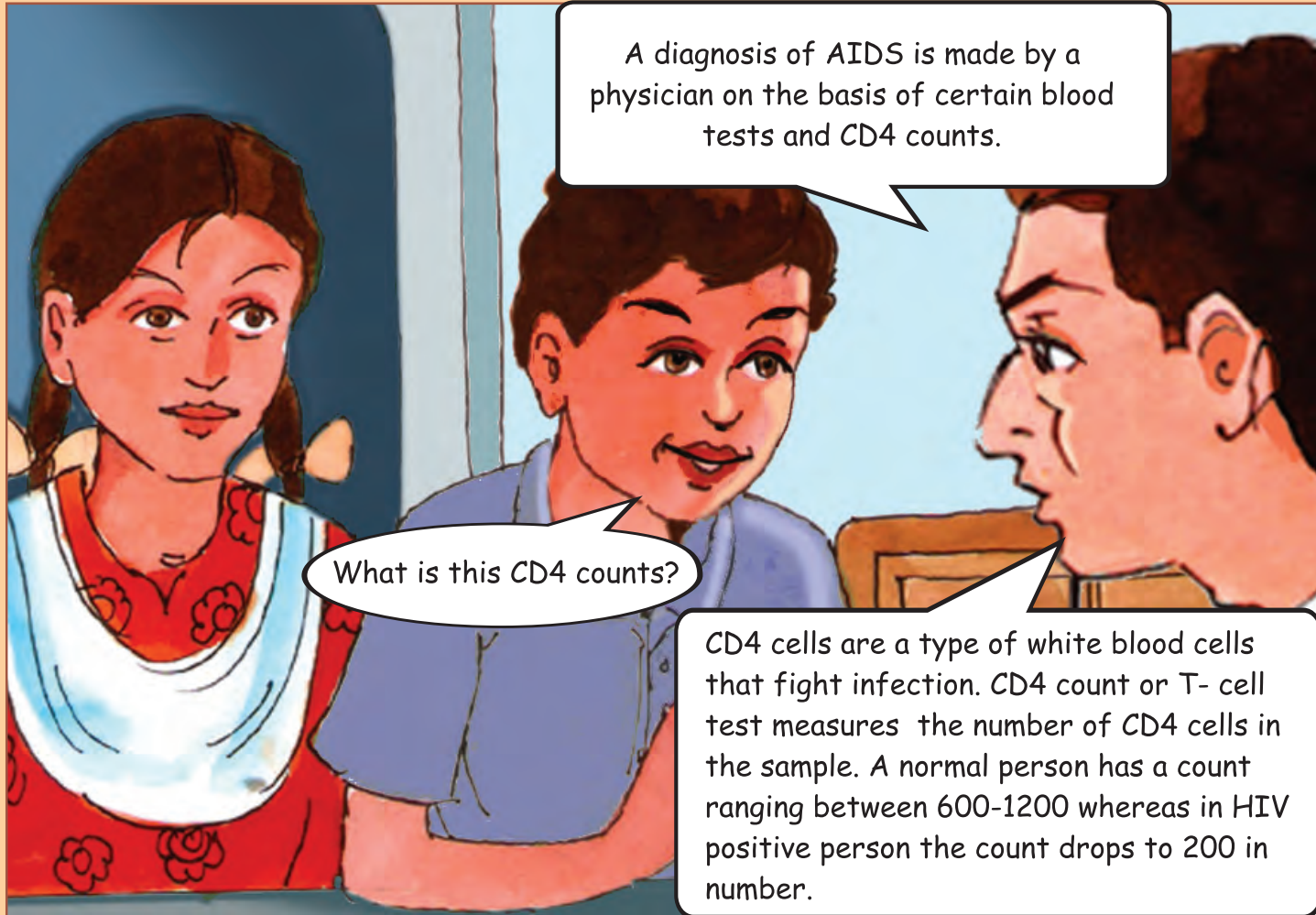


Some people do experience an illness with fever, rash, joint pains and enlarged lymph nodes. If an immune reaction to HIV occurs, it usually takes place between 1 and 6 weeks after HIV infection has occurred. A person with HIV may look healthy and feel good, but he/she can still pass the virus to others, especially during the initial infection period. The term AIDS is not used very often now. 'Late stage or advanced HIV infection' is used instead.



Source : http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0037-86822009000500001
<http://fracp.bigpondhosting.com/examquestions/2005papertwo.htm>





A diagnosis of AIDS is made by a physician on the basis of certain blood tests and CD4 counts.

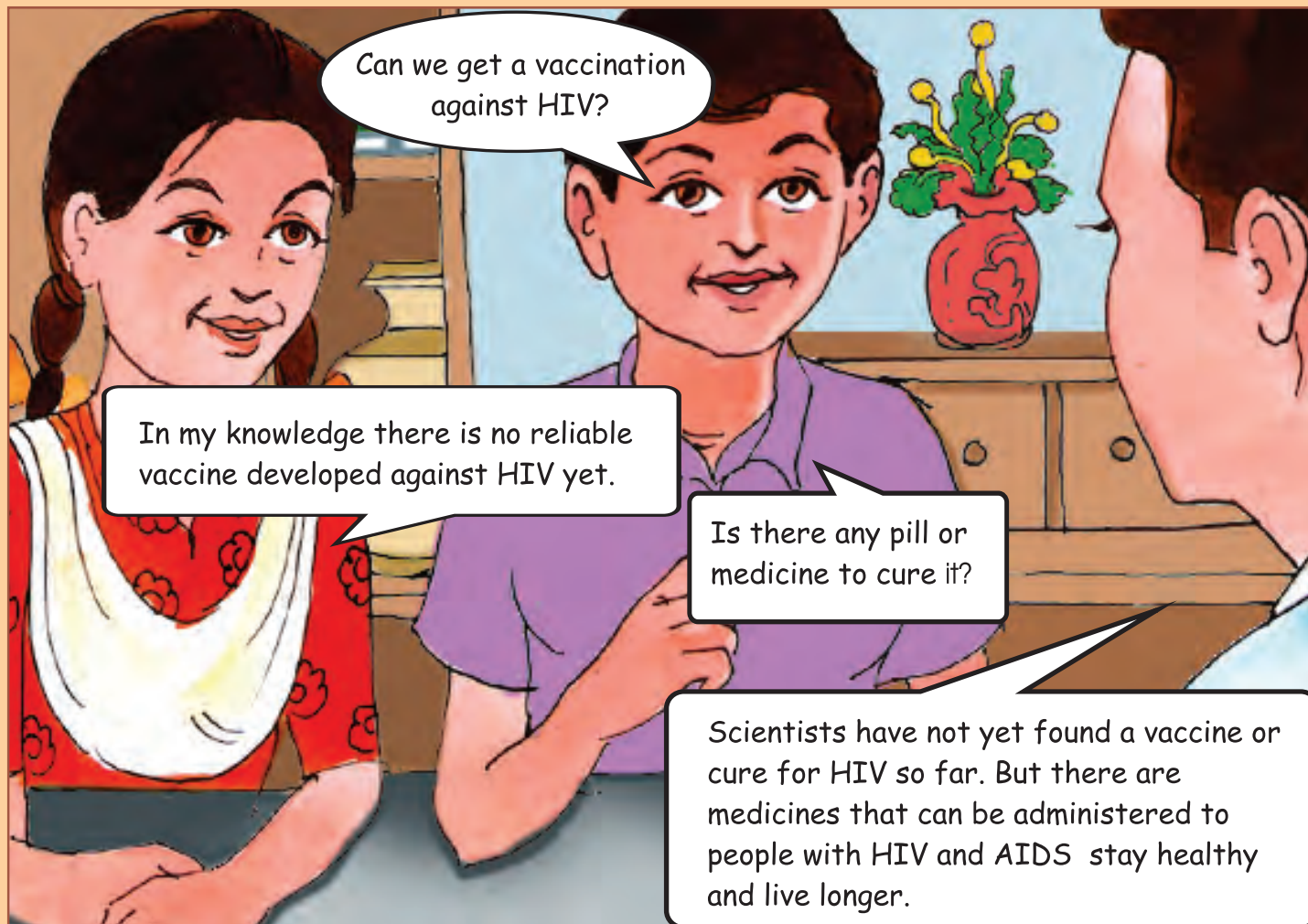
What is this CD4 counts?

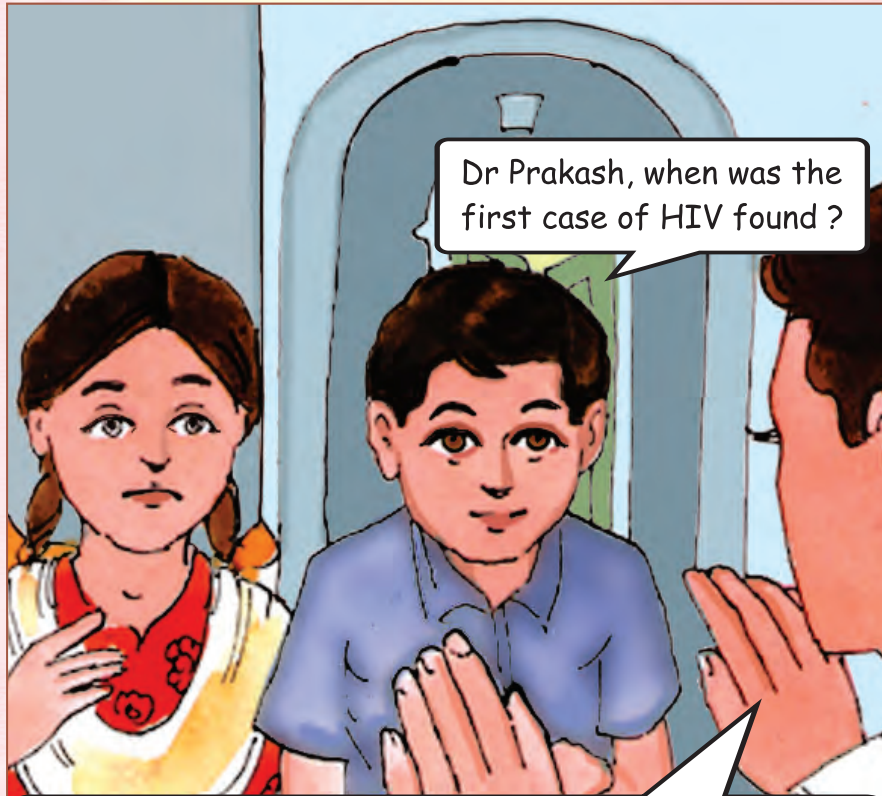
CD4 cells are a type of white blood cells that fight infection. CD4 count or T- cell test measures the number of CD4 cells in the sample. A normal person has a count ranging between 600-1200 whereas in HIV positive person the count drops to 200 in number.



National AIDS Control Organisation
India's Voice against AIDS

National AIDS Control Programme have formulated Integrated Counselling and Testing Centres (ICTC) mainly located in government hospitals. These services are also being expanded in the rural areas, private sector facilities and mobile clinics. The main functions of an ICTC include HIV diagnostic tests, counselling and promoting behavioural change and referral for care and treatment services.

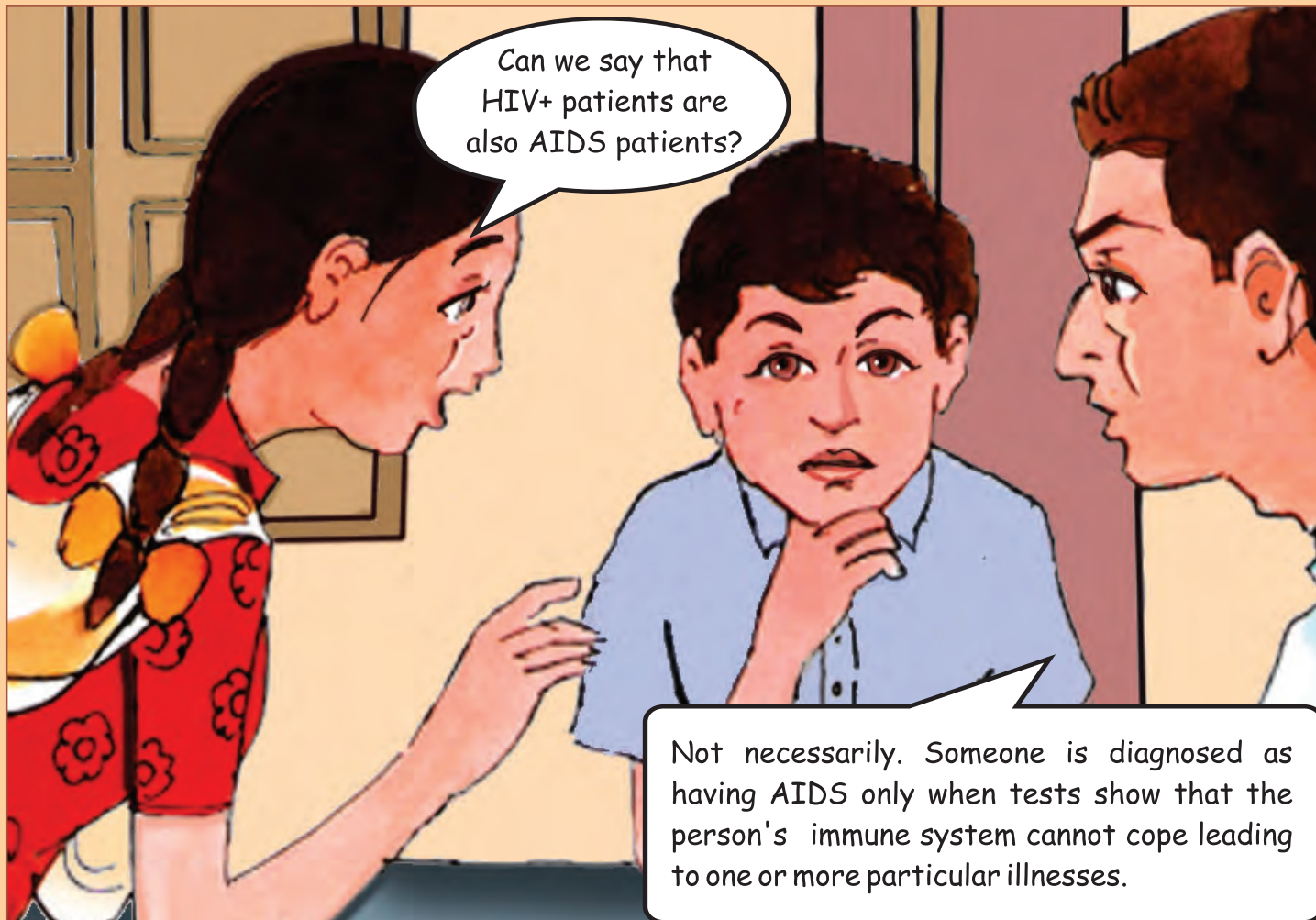


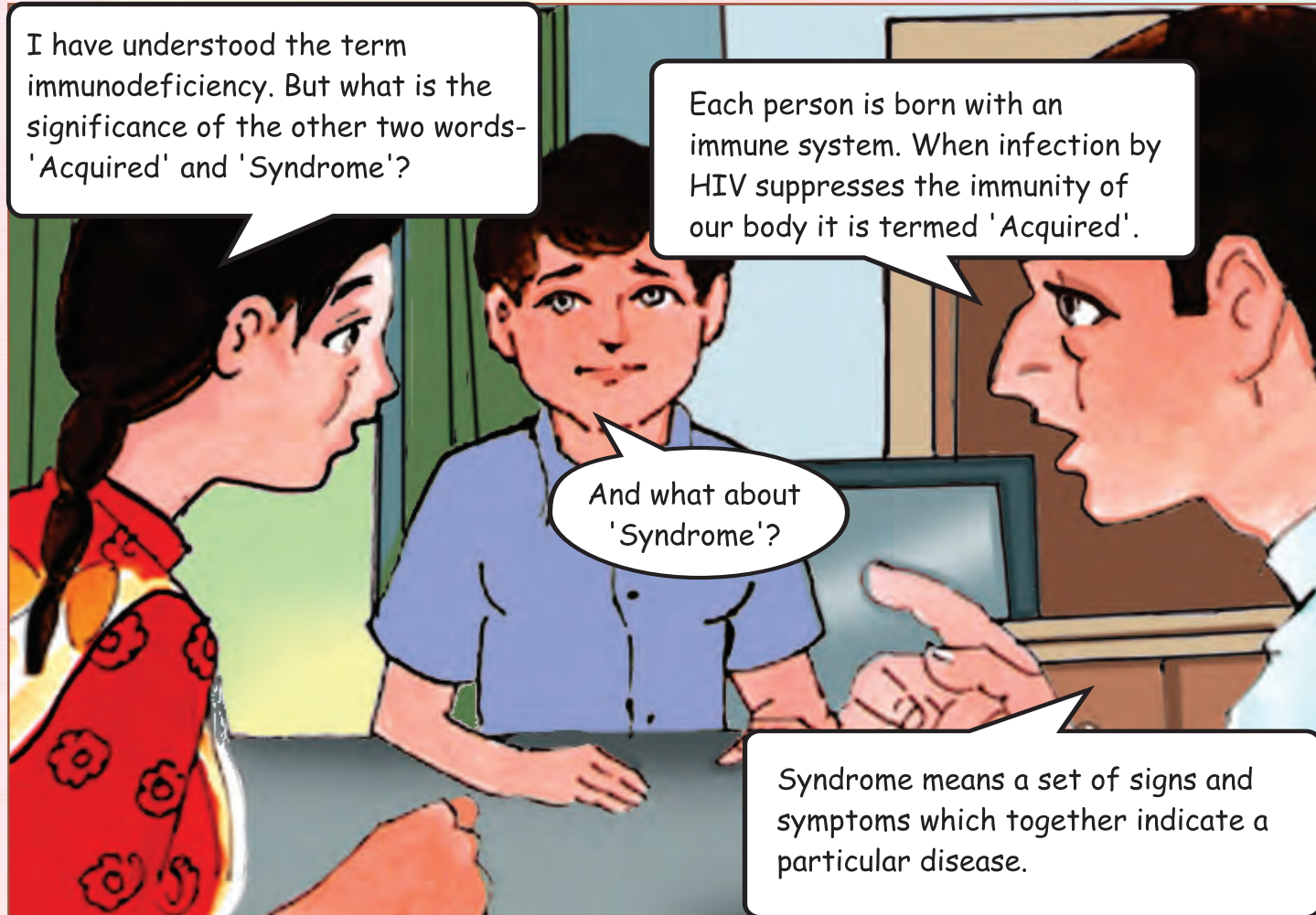


Dr Prakash, when was the first case of HIV found ?

The first known case was found in a blood sample collected from a man from Kinshasha, Democratic Republic of Congo in 1959. In India, the first case of HIV was detected in Chennai in 1986.

Genetic analysis of blood suggests that the origin of Human Immunodeficiency Virus came from a single strain of HIV 1 in the 1940s or 1950s. In the US, the virus is known to have existed since the mid 1970s. Symptoms of rare types, of what are now known as opportunistic infections, began manifesting themselves in 1979-1981. HIV was first isolated by scientists in 1983. The virus was at first called HTLV III (Human T-cell Lymphotropic Virus-type III where Lymphotropic means abnormal enlargement of lymph nodes) by the International Scientific Committee. The name was later changed to HIV (Human Immunodeficiency Virus).





I have understood the term immunodeficiency. But what is the significance of the other two words- 'Acquired' and 'Syndrome'?

Each person is born with an immune system. When infection by HIV suppresses the immunity of our body it is termed 'Acquired'.

And what about 'Syndrome'?

Syndrome means a set of signs and symptoms which together indicate a particular disease.

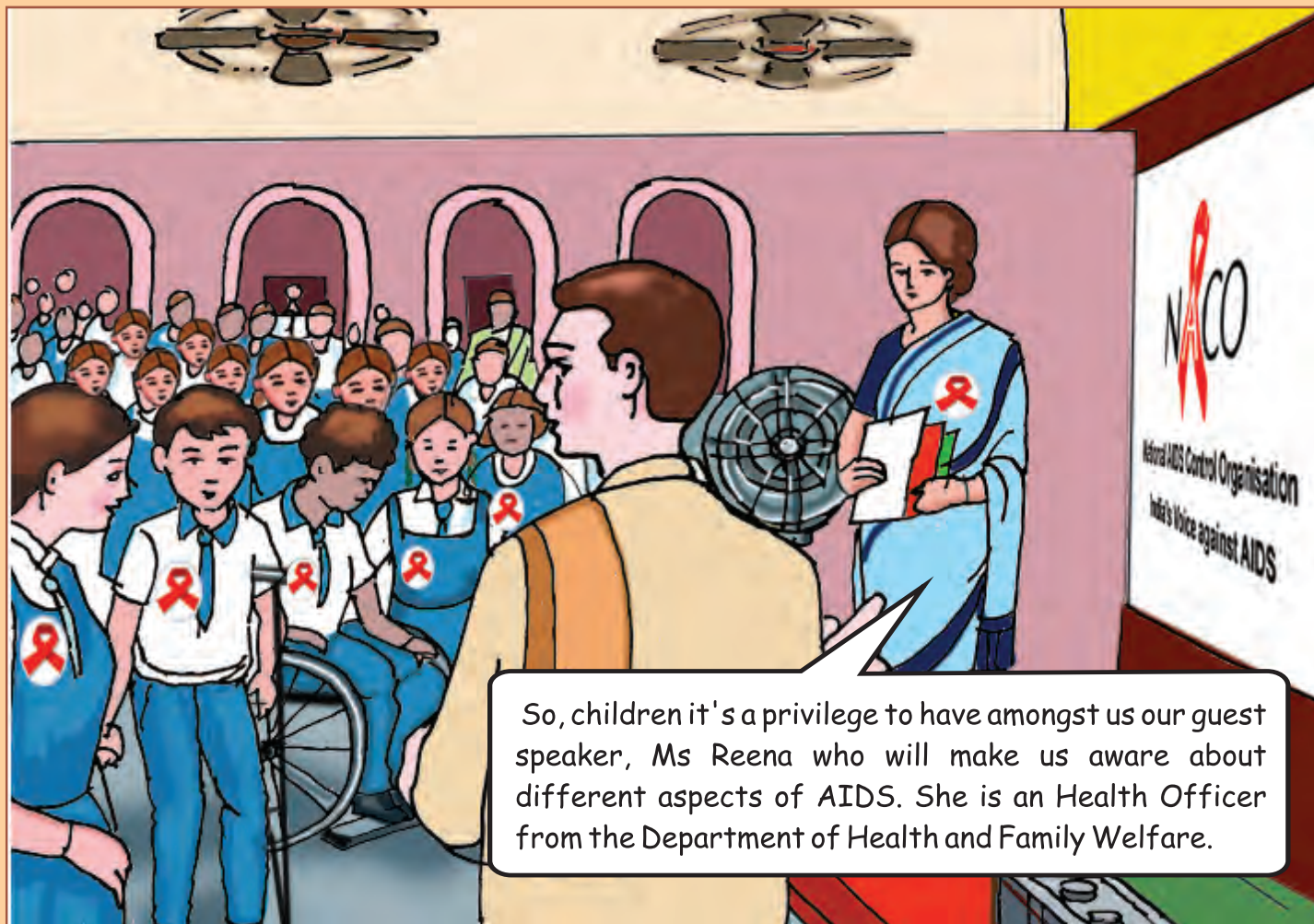
Suppression of the immune system in a person makes the body susceptible to infections caused by bacteria, viruses, fungi and other parasites. They cause common diseases such as chest infections, pneumonia, diarrhea, gastroenteritis, frequent eye infections and skin rashes. Thus, a person develops signs and symptoms of these infectious diseases. A group of symptoms due to multiple diseases is called a syndrome. AIDS is, therefore, not defined as a disease but as a syndrome.



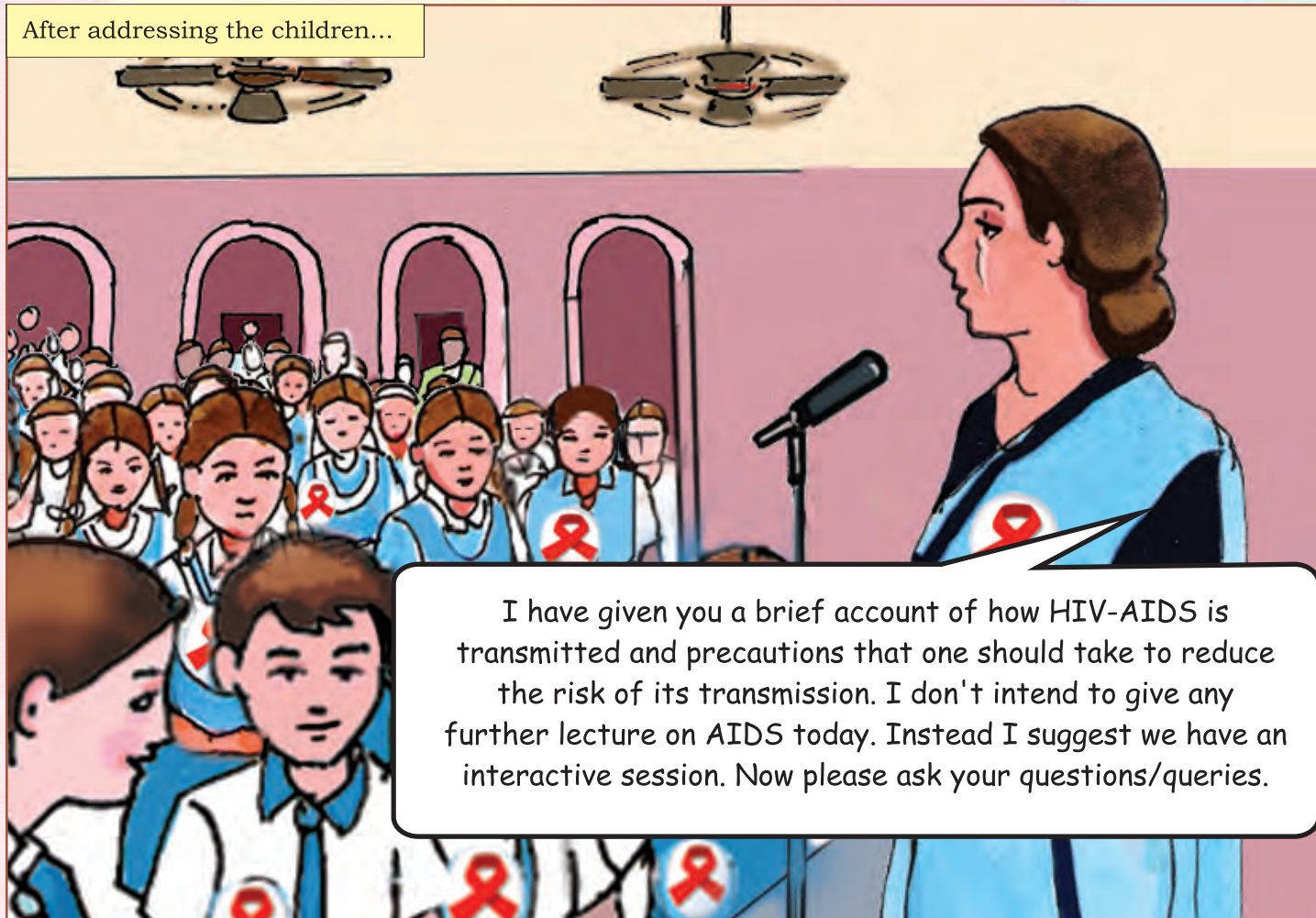
On the World AIDS day at School...
All students assembled in a hall.
The Principal addresses the students and
extends a welcome to the guest speaker.

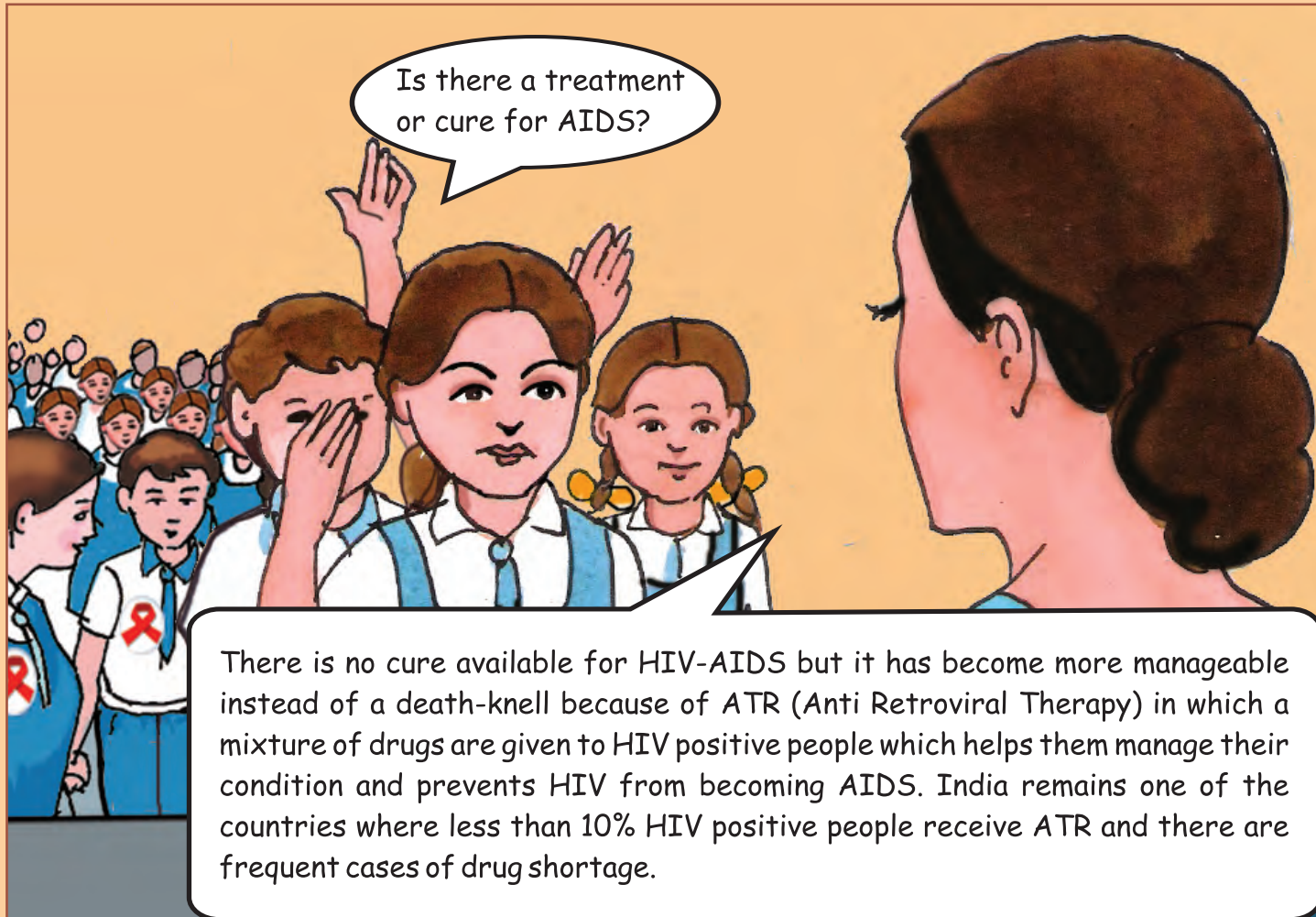


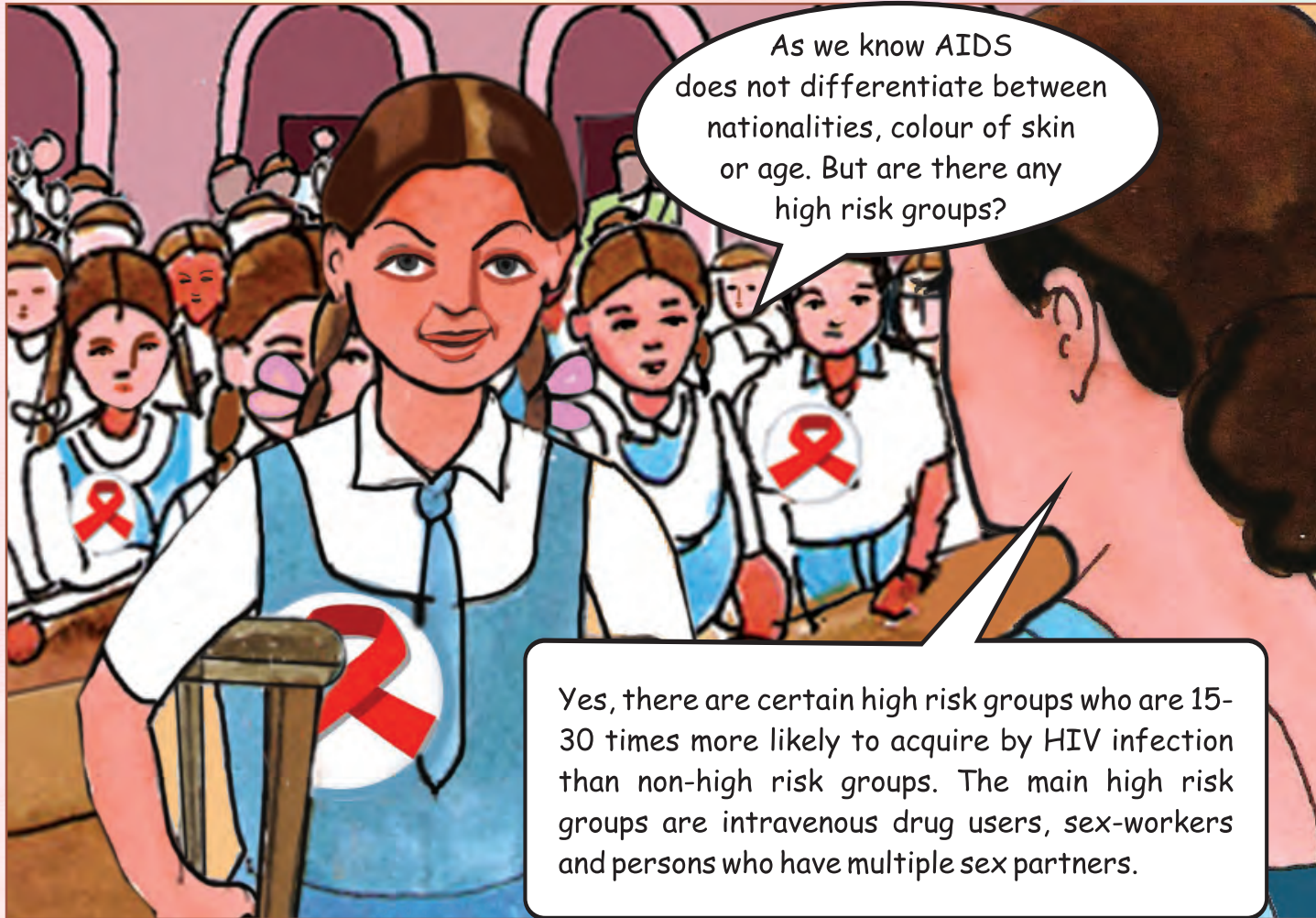
Good Morning children, it is an encouraging sight to see you all with your red ribbons to mark today as World AIDS Day. The recently released UNAIDS Report 2013 claims that India has managed to reduce new HIV infections by a staggering 57% since 2001. What do you think is the reason? The key point is creating awareness about AIDS. There has been a concerted effort by the Central government to tackle this ailment head-on through information dissemination, education and communication. This has helped in preventing the disease from spreading.



After addressing the children...

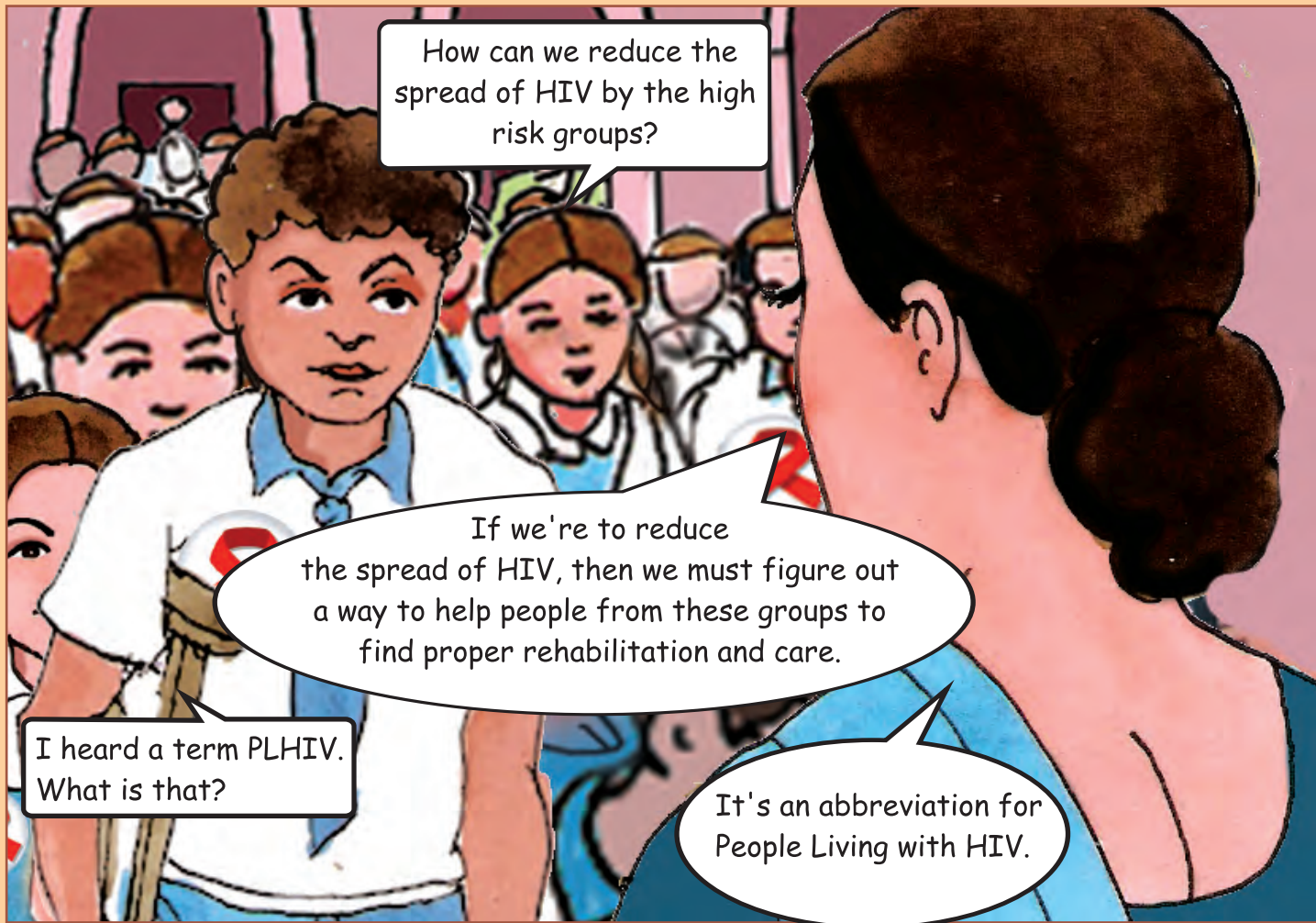






As we know AIDS does not differentiate between nationalities, colour of skin or age. But are there any high risk groups?

Yes, there are certain high risk groups who are 15-30 times more likely to acquire by HIV infection than non-high risk groups. The main high risk groups are intravenous drug users, sex-workers and persons who have multiple sex partners.



Why are there so many undetected cases of AIDS?

This is due to lack of information and awareness. Treatment for high risk groups is even harder because of the social stigma attached to them.

How can we lower the chances of the virus being transmitted by HIV positive mother to her baby?

GLOSSARY
Stigma – a mark of disgrace associated with a particular circumstance, quality or person

Is it possible to reduce the chances of transmission of HIV in a couple where one partner is HIV positive and the other HIV negative?

A study in India has shown that early treatment not only prevents HIV from becoming AIDS but also lowers the chance of transmitting the virus from HIV positive mother to her foetus.

Yes, indeed! if the HIV positive partner takes effective preventive measures like use of condom during sexual acts, the chances of transmission to the HIV negative partner can be lowered.

What kind of special diet does an HIV-AIDS person require?

Making improvements in diet can improve their health and feeling of well-being. If someone is HIV-positive, his/her nutrition needs to be paid special attention because the body is not generating antibodies.

Some people even while being aware of the modes of transmission of HIV-AIDS fail to take precautions and fall victim to this disease. Why is this so?

Awareness is not the only solution to such problems. Our attitude towards the things play an important role. It is very important to understand the options available and learn to make our decisions accordingly.

AIDS PATIENTS IN AN INCLUSIVE SOCIETY

DOs



Sympathise and empathise with them.

Provide them family and social support.

Allow them to be a part of the family as he / she was prior to disclosure of the infection.

Allow them to get back to their work as soon as he / she is physically fit, since HIV infection doesn't require special rest.

Keep them engaged in some activity to keep their minds off their illness.

Make efforts to reduce their stress.

Encourage them to exercise and meditate as these help prolong the life span.

Provide them with a high protein, high vitamin diet and clean potable water (boiled).

Convince them to stop all addictions such as tobacco, cigarettes, alcohol or other recreational drugs.

Register them with a health care facility for regular checkups.

Take immediate steps to treat even minor ailments. However, it is not necessary to disclose their HIV status to their family physician.

Dispose of blood stained bandages properly.



GLOSSARY

Sympathize – feel or express sympathy.

Empathize – understand and share the feelings of another.

AIDS PATIENTS IN AN INCLUSIVE SOCIETY

◀ DON'Ts

Don't accuse them for getting infected, it might not be their fault.

Don't make them feel guilty.

Don't try to probe into when, where the person was infected.

Don't isolate them in their home or workplace.

Don't separate them from spouse or children, since they are the best support for them. It is important for them to spend quality family time together.



It is not necessary to use gloves while cleaning and feeding HIV patient. However, gloves should be used as a precaution to protect the patient from other infections.

Don't get fooled by fake claims, false cures, from black magic and faith healers.

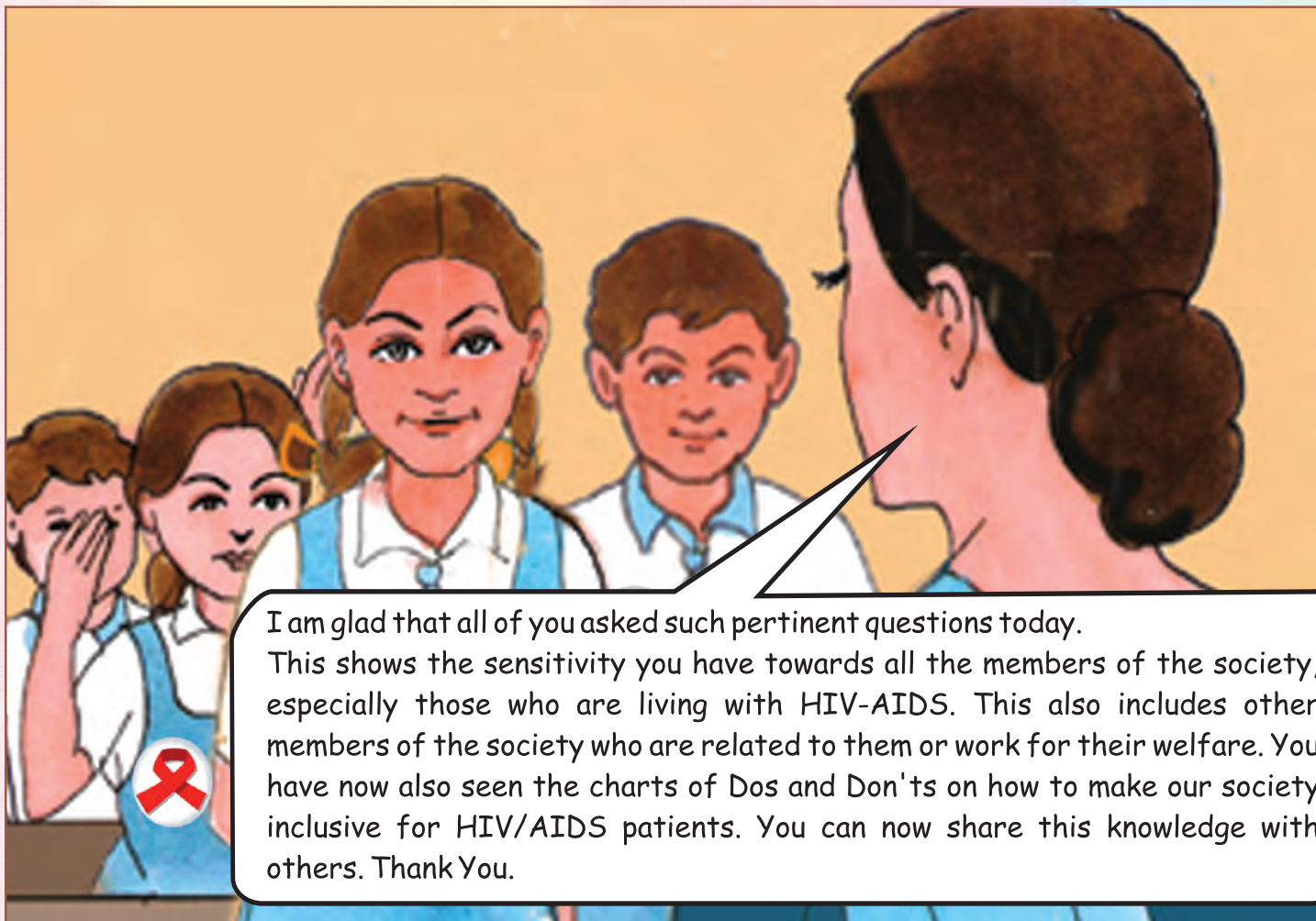
Don't share razors, toothbrush and other sharp objects with an infected person or for that matter with anybody.

Don't take too many relatives to meet the patient admitted in the hospital to avoid infections to the patient.

Don't test for HIV repeatedly, once the presence of infection is established it remains there forever.

Don't scare the patient about suffering and death. In the terminal stage, prepare him/her for a smooth journey to death.





I am glad that all of you asked such pertinent questions today. This shows the sensitivity you have towards all the members of the society, especially those who are living with HIV-AIDS. This also includes other members of the society who are related to them or work for their welfare. You have now also seen the charts of Dos and Don'ts on how to make our society inclusive for HIV/AIDS patients. You can now share this knowledge with others. Thank You.

BOOK DEVELOPMENT COMMITTEE

ADVISOR

Professor Binod Kumar Tripathi, *Director*, NCERT, New Delhi

MEMBERS

Anjni Koul, *Associate Professor*, Department of Education in Science and Mathematics (DESM), NIE, NCERT, New Delhi

Aparna Pandey, *Associate Professor*, Department of Education in Social Sciences (DESS), NIE, NCERT, New Delhi.

C.V. Shimray, *Assistant Professor*, Department of Education in Science and Mathematics (DESM), NIE, NCERT, New Delhi

K.K. Sharma, *Principal* (Retd.), Government College, Ajmer, Rajasthan.

Pushp Lata Verma, *Assistant Professor*, Department of Education in Science and Mathematics (DESM), NIE, NCERT, New Delhi

Poonam Khattar, *Associate Professor*, Department of Education and Training, National Institute of Health and Family Welfare (NIHFW), Munirka, New Delhi.

Pratima Singh, *Assistant Professor*, Department of Resource Management, Institute of Home Economics, Delhi University, New Delhi

R.R. Koireng, *Assistant Professor*, Department of Education in Science and Mathematics (DESM), NIE, NCERT, New Delhi

Shveta Uppal, *Chief Editor*, Publication Division, NCERT, New Delhi
Sulekh Chandra, *Associate Professor*, Zakir Husain Delhi College, Delhi University, New Delhi.

Sunita Farkya, *Professor*, Department of Education in Science and Mathematics (DESM), NIE, NCERT, New Delhi

Ushvinder Kaur, *Associate Professor*, Department of Geography, Swami Shraddhanand College, Delhi University, New Delhi

V.B. Bhatia, *Professor* (Retd.), Delhi University

REVIEW COMMITTEE

Amit Tuteja, *Specialist* – Chemical Industrial Disaster Management (CIDM), National Disaster Management Authority (NDMA), New Delhi
Deepmala, *Assistant Professor*, Department of Education in Psychological Foundations and Education (DEPFE), NIE, NCERT, New Delhi

J.K. Patidar, *Assistant Professor*, Department of Teacher Education (DTE), NIE, NCERT, New Delhi

P.L. Joshi, *Former Director*, National Vector Borne Disease Control Programme (NVBDCP), Government of India, Public Health Specialist, New Delhi

R. Joshi, Retd. *Lecturer* (Sel. Gr.), Department of Education in Science and Mathematics (DESM), NIE, NCERT

Rachna Garg, *Assistant Professor*, Department of Education in Science and Mathematics (DESM), NIE, NCERT, New Delhi

Surya Prakash, *Associate Professor*, National Institute of Disaster Management (NIDM), IP State, MG Road, New Delhi

Vandana Saxena, *Former TGT (Science)*, KVS

Varada M. Nikalje, *Assistant Professor*, Department of Languages (DEL), NIE, NCERT, New Delhi

MEMBER COORDINATOR

Ruchi Verma, *Assistant Professor*, Department of Education in Science and Mathematics (DESM), NIE, NCERT, New Delhi

ACKNOWLEDGEMENTS

The National Council of Educational Research and Training (NCERT) acknowledge the valuable contribution of the individuals and organisations involved in the development of “Resource Material on Management of Disasters”. The council acknowledges the valuable contribution of the following academics:

Ajinder Walia, *Assistant Professor*, National Institute of Disaster Management, New Delhi; Chandrani B. Neogi, *Assistant Professor*, National Institute of disaster Management, New Delhi. Special thanks are due to Professor Jai Shree Sharma, Former Head, DESM and Professor A.K. Wazalwar, Head, DESM, National Council of Educational Research and Training for providing guidance. The contribution of APC-office, administration of DESM, Publication Department and Secretariat of NCERT is also acknowledged.

EMERGING
CONCERNS
LIFESTYLE
RELATED ISSUES

VIMLA IN
VIRUSLAND

SOLAR
SYSTEM FOR
EVERYONE

OUR
INDIA

GO
GREEN

CHANDNI
CHAAT

नन्हा
राजकुमार

हजारों टापू
एक देश—
फ़िलिपीन्स

मासूम मन
का जादू

18137

विद्यया ऽ मृतमश्नुते



एन सी ई आर टी
NCERT

राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्
NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

ISBN 978-93-5007-339-1