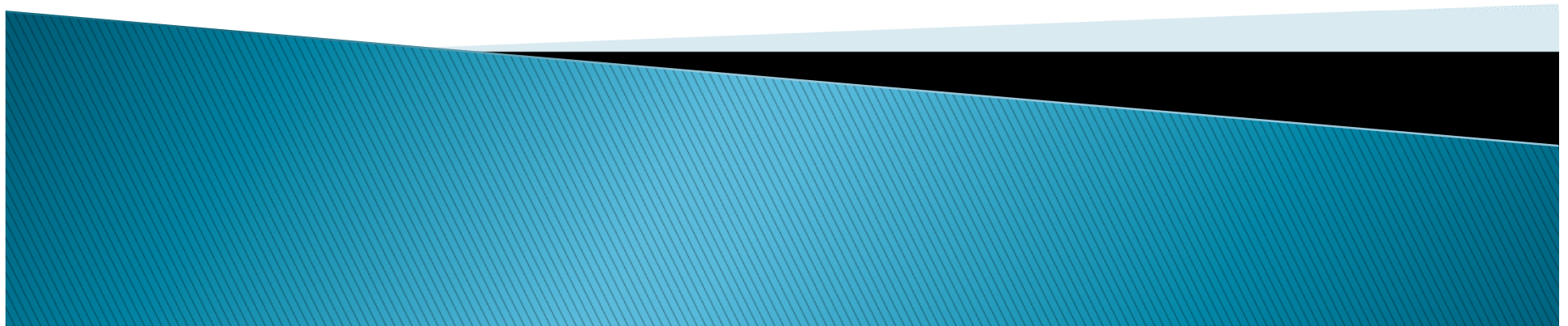


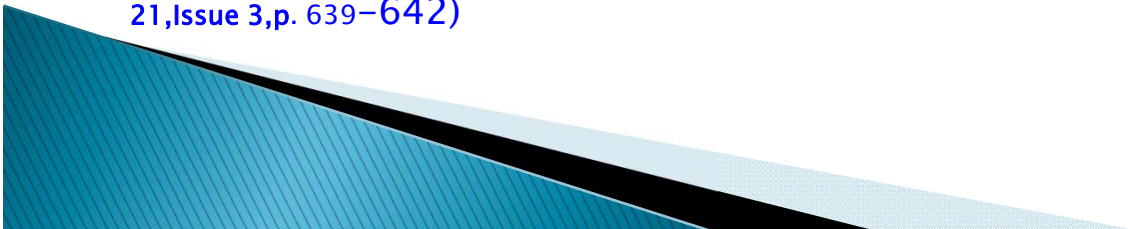
Persistent cough? Pertussis may be lurking behind you

Michal Englard Hershler RN,M.Occ.H
Head nurse, *Occupational health clinic for HCW,*
Rambam Campus for Human Health ,
Haifa, Israel



B. pertussis infections in adults are common,
endemic, and yet mostly unrecognized by
physicians treating adult patients

(Deville JG, Cherry JD, et al. Frequency of Unrecognized *Bordetella pertussis* Infections in Adults 1995 *Clinical Infectious Disease*, Volume 21, Issue 3, p. 639–642)



Pertussis

- ▶ Infectious bacterial disease caused by *Bordetella Pertussis*
- ▶ Mortality rate in babies from pertussis is approximately 2%



We are not the only one

In the period from April to October 1977, an epidemic of pertussis in the outpatient population of a large metropolitan hospital involved 115 diagnosed cases

(V. Broome C. Preblud R.S et.al [Epidemiology of pertussis, Atlanta, 1977](#)[The Journal of Pediatrics](#), Volume 98, Issue 3, P.362-367, March 1981)

- ▶ In 2003, 17 symptomatic cases of pertussis were
- ▶ Reported among health care workers (HCWs) resulted from a 1-day exposure to an infant who was later confirmed to have pertussis

(Angela Calugar¹, Ismael R. Ortega-Sánchez, et al. nosocomial Pertussis: Costs of an Outbreak and Benefits of Vaccinating Health Care Workers [Oxford Journals Medicine Clinical Infectious Diseases](#) Volume42, Issue7Pp. 981-988.)



Recommendation for vaccinations

- ▶ Hospitals and ambulatory-care facilities should provide Tdap for HCW and use approaches that maximize vaccination rates
- ▶ [CDC Immunization of Health-Care Personnel Recommendations of the Advisory Committee on Immunization Practices \(ACIP\) MMWR, Recommendations and Reports / Vol. 60 / No. 7 November 25, 2011](#)
- ▶ The Israeli health authorities suggested in 2009 inoculating all HCW in Israel with Tdap, with the cost to be paid by the employer.

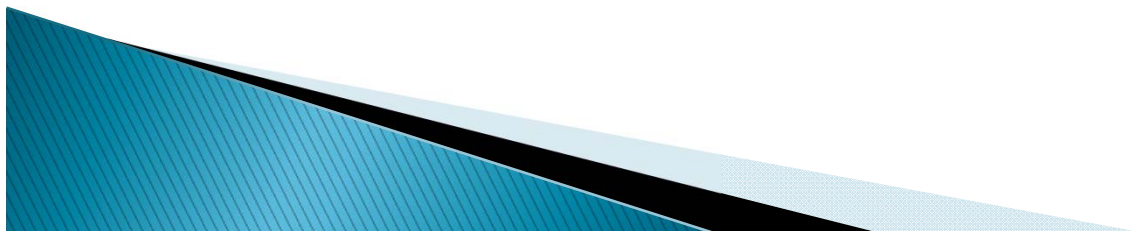


Needed but Expensive
about 17 \$ each

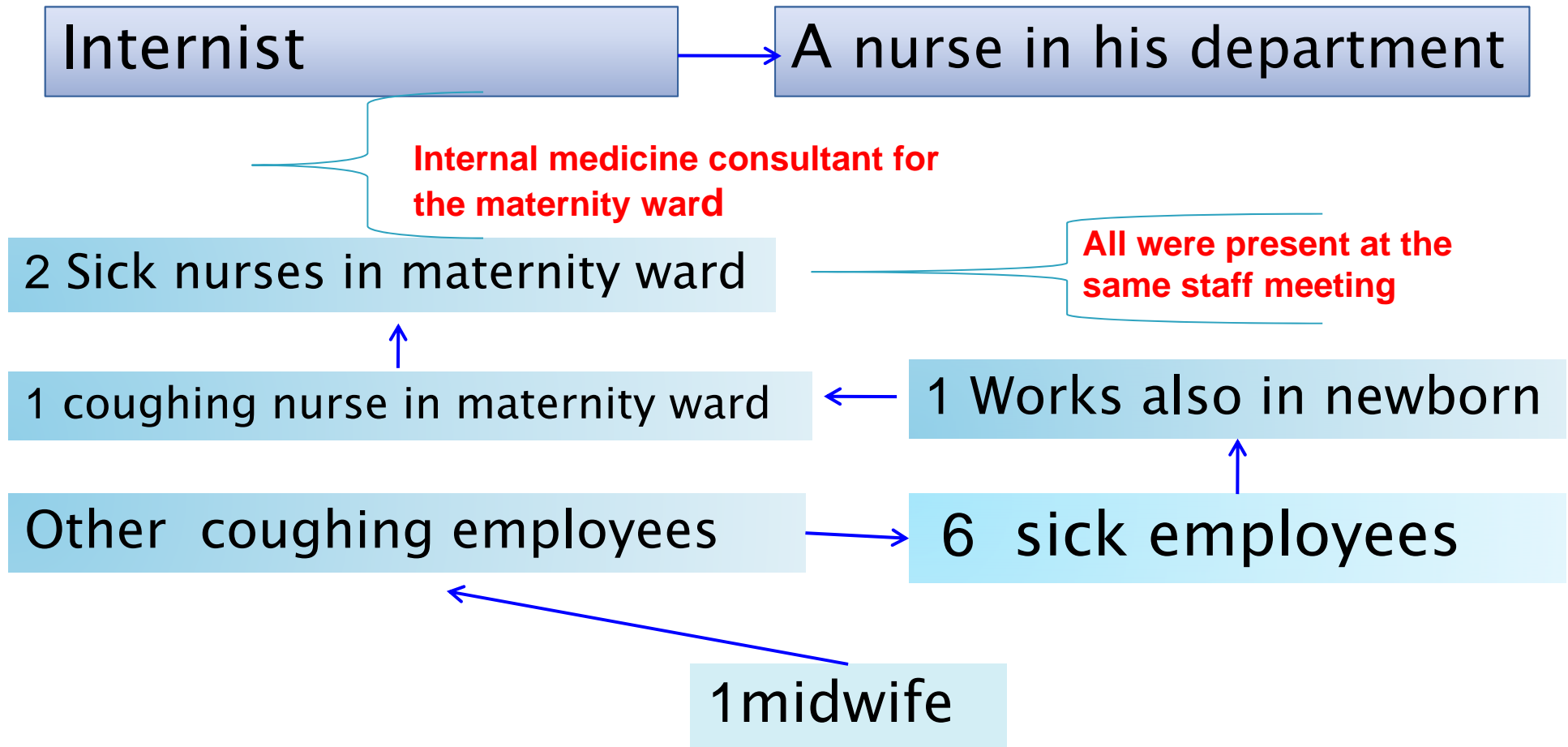


Diagnosis according to serology for Pertussis

- ▶ IgG greater than 50iu or
 - ▶ Positive IgM or
 - ▶ Positive IgA
-
- ▶ some of the uncertain results were repeated 2–3 weeks following the initial exam.
-
- ▶ We considered one positive result to be sufficient for diagnosing Pertussis

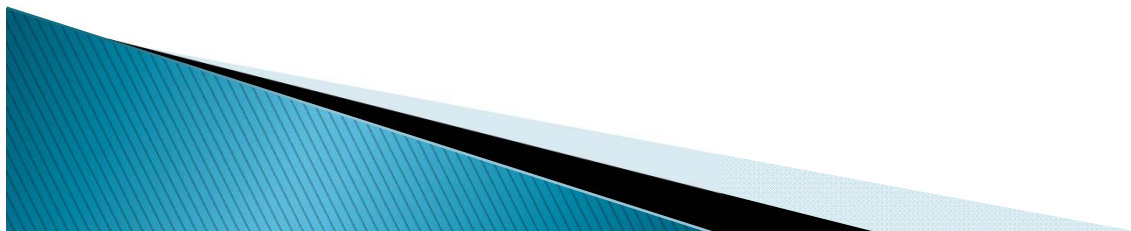


"transition junction"



“Transition junction”

- ▶ hospital dining room
- ▶ staff meetings
- ▶ personal relationship between workers in different departments



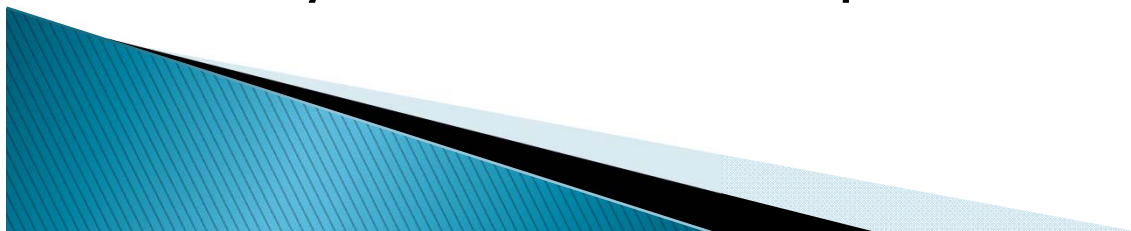
After 4 months

- ▶ There were 2 sick employees in the intensive care neonatal department



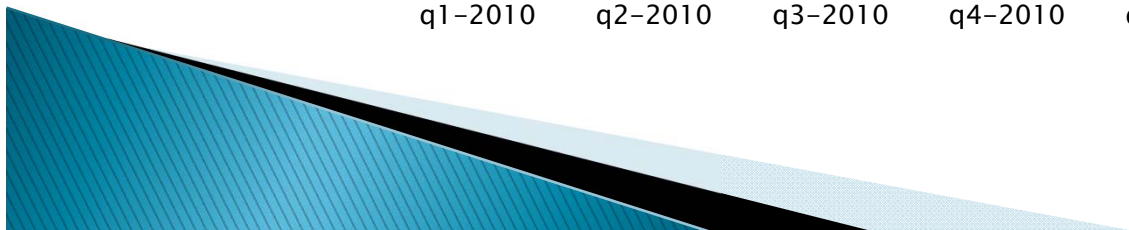
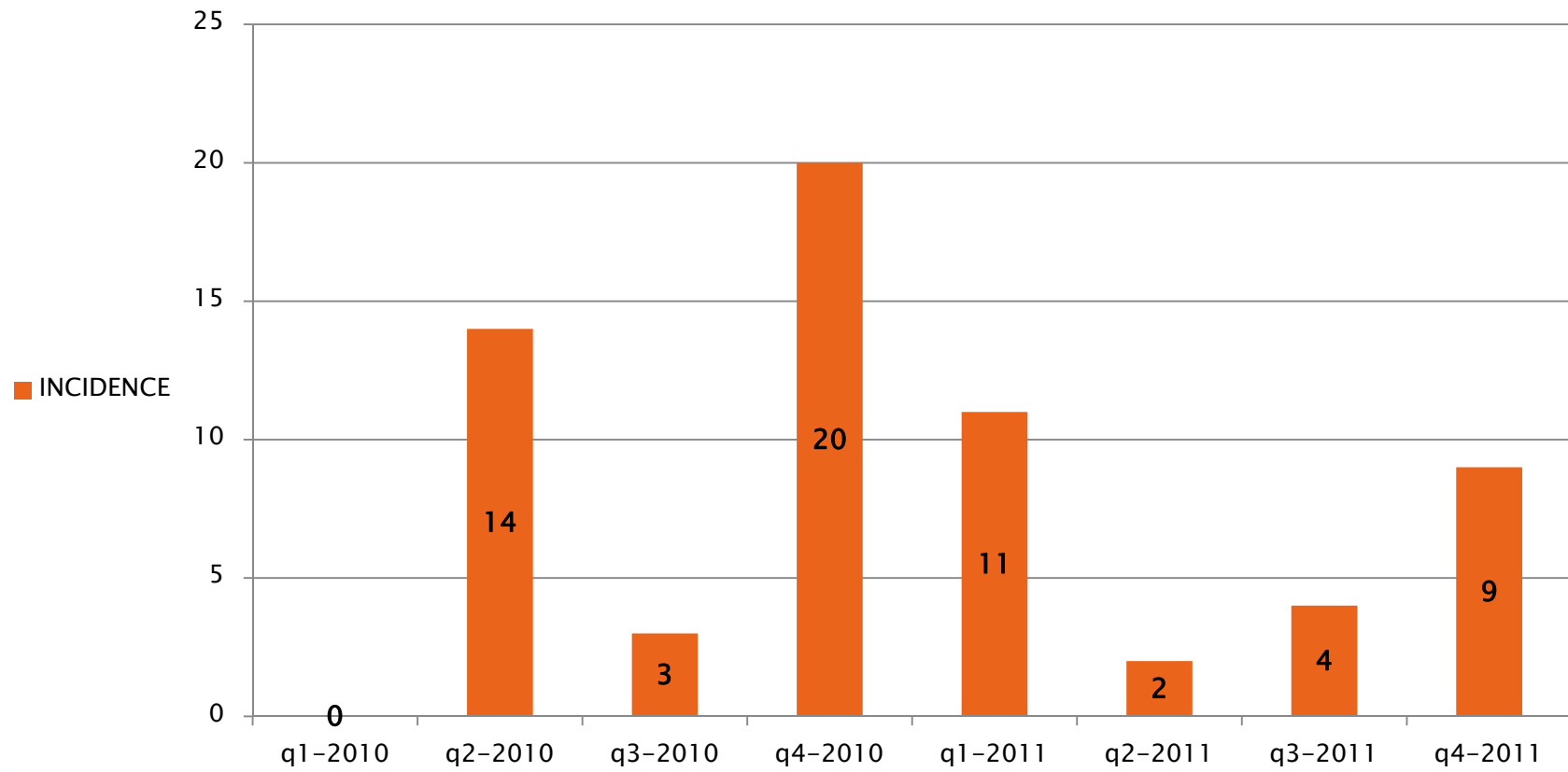
Suspected Pertussis questionnaire

- ▶ Demographic details including department
- ▶ How long have you been coughing?
- ▶ Do you suffer from coughing attacks, or do you feel you are choking or about to vomit?
- ▶ Is some one else coughing in your family? Children? How old are the children?
- ▶ Do you smoke? Is the cough similar to that from smoking or prior asthmatic attacks?
- ▶ Do you have muscle pain?

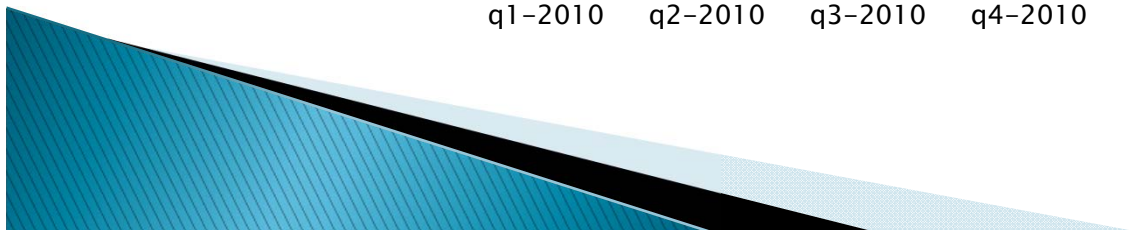
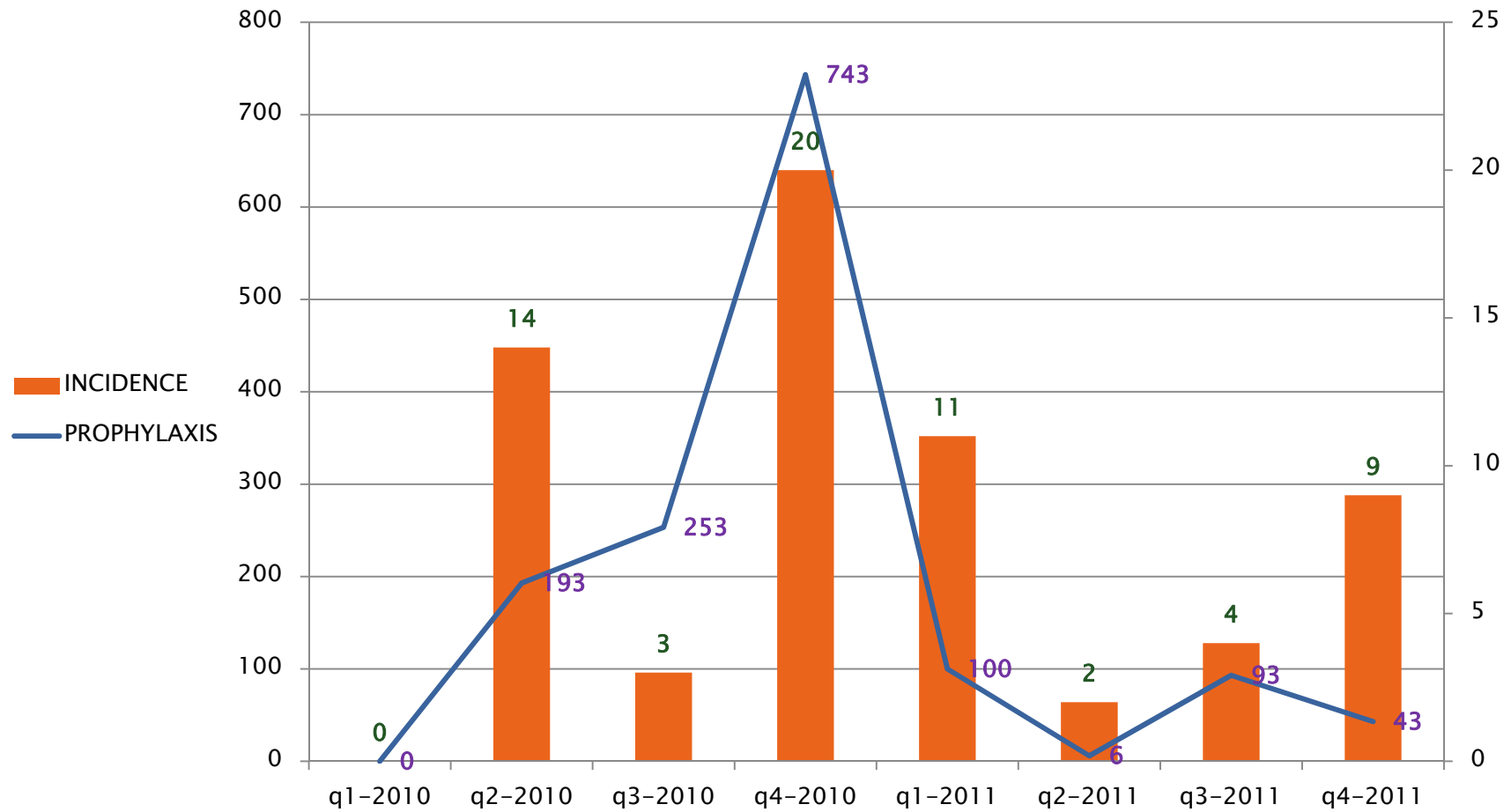


Incidence

INCIDENCE



Incidence / prophylaxis



Prophylactic treatment

1431 employees received prophylactic treatment by the end of 2011

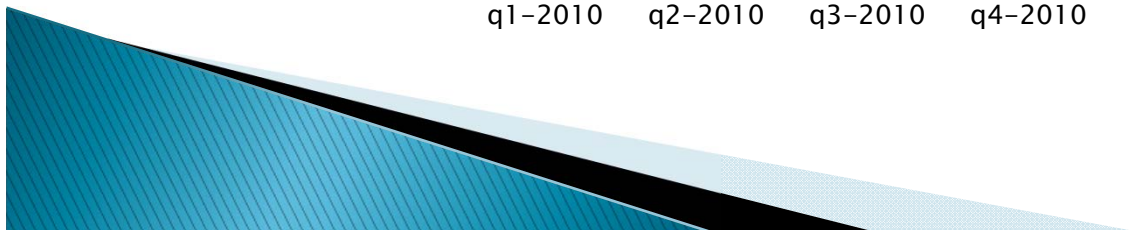
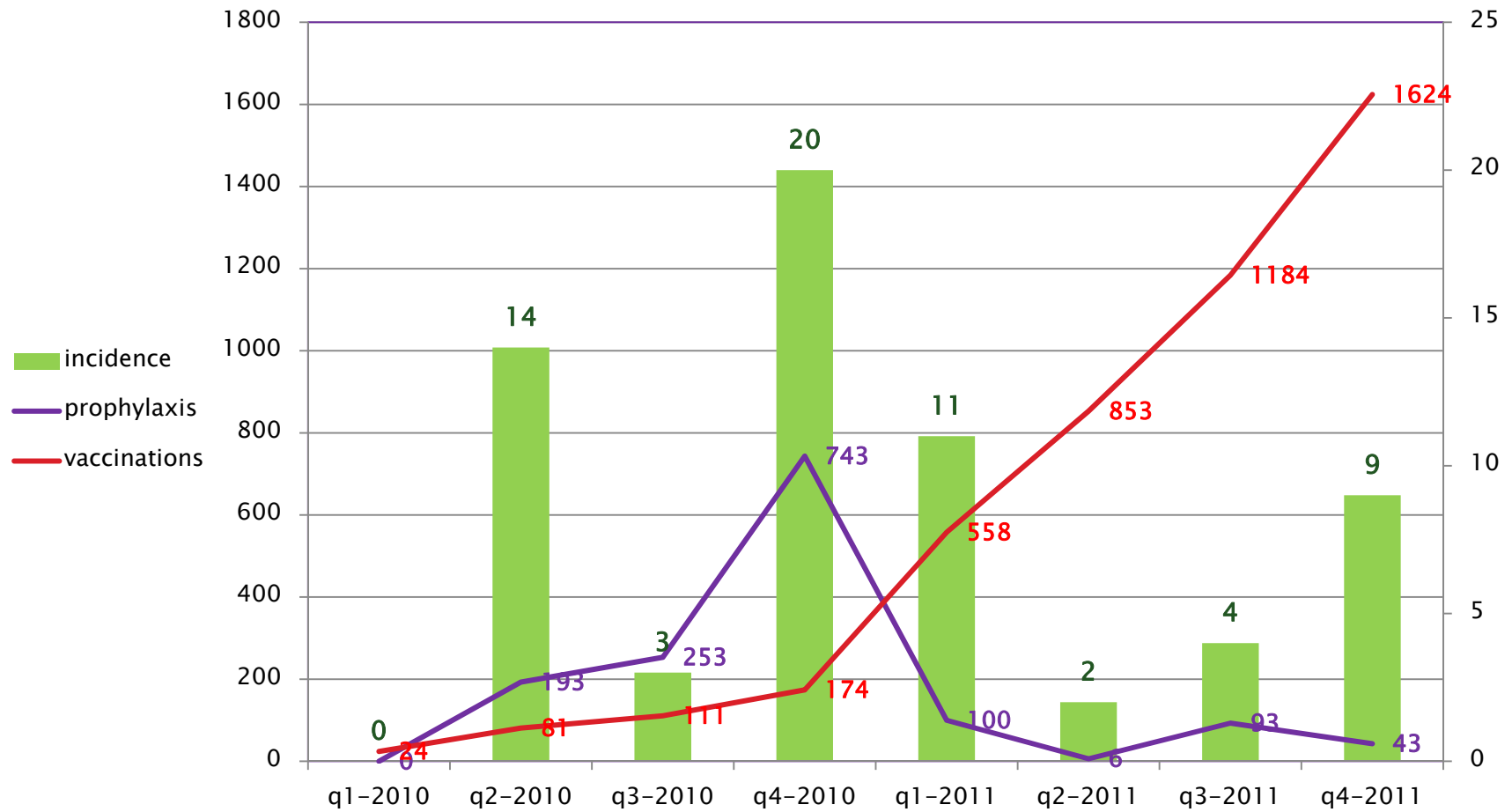
180 women admitted for childbirth received prophylaxis

292 infants and 110 premature newborns received prophylaxis

439 immunosuppressed hemato-oncological patients.

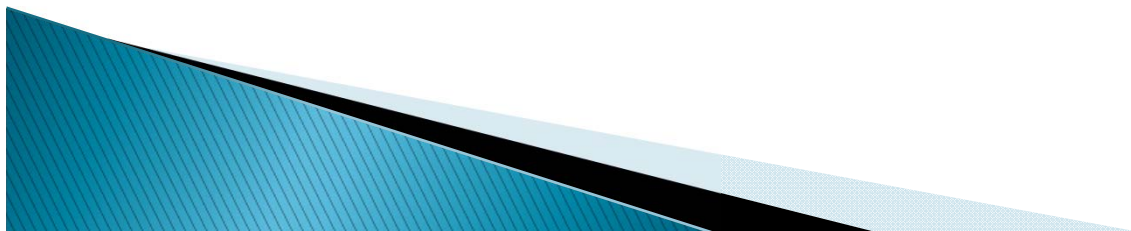


Incidence , prophylaxis & vaccinations

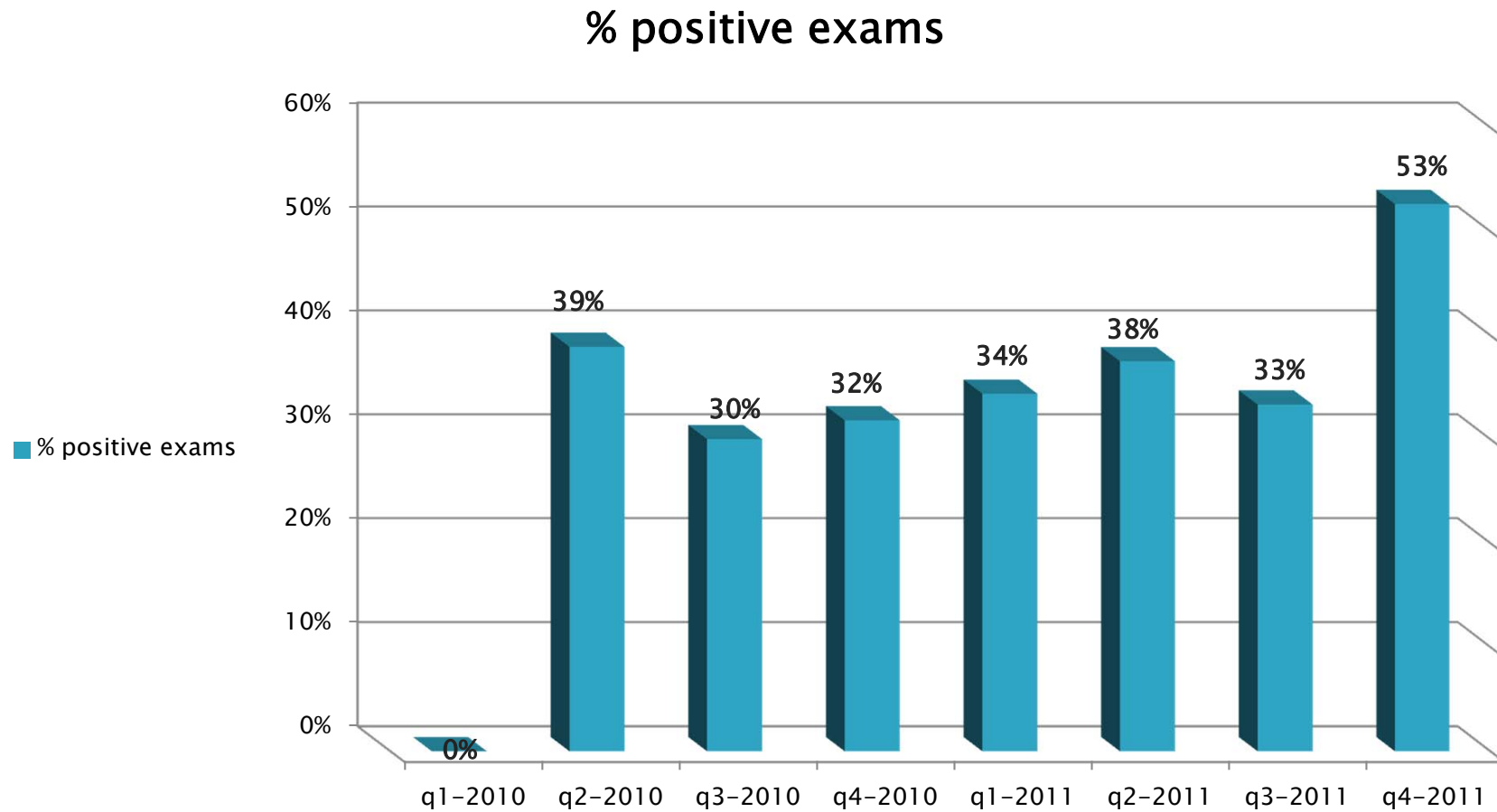


Policy at our Institute

- ▶ We do not allow any new employees to begin working without first receiving Pertussis vaccination, even if they will not be in contact with patients



% of Positive Exams



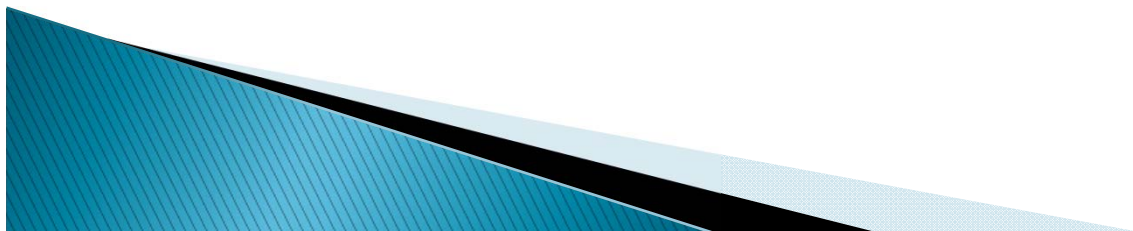
Limitation

- ▶ Despite our efforts there may be sick people who do not report their illness.



Discussion

- ▶ Pertussis is not only an occupational disease, but it does in any case have an even greater significance when health care personnel who treat children and immunosuppressed patients become ill



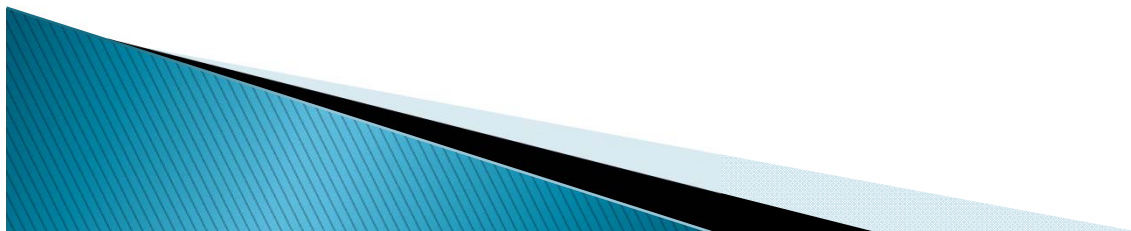
Recommendations

Guidelines for diagnosing pertussis among health care worker should be written and used in all health care settings



Further Recommendations

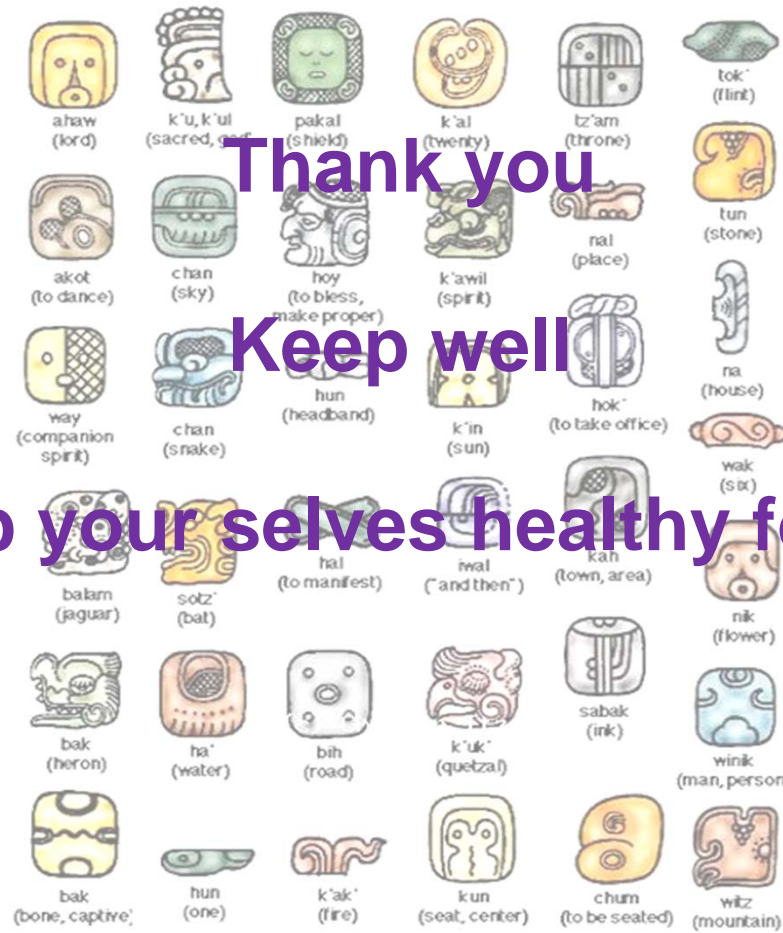
- ▶ Current vaccines against pertussis have proven their safety and efficacy in large-scale clinical trials
 - Should be given on a mandatory basis and be free of charge to health care workers
 - Should be administered to adult population



Instructional training

- ▶ To identify and vaccinate against pertussis among their patients.
- ▶ To protect themselves and their families.





Thank you

Keep well

and keep yourselves healthy forever!!!!

